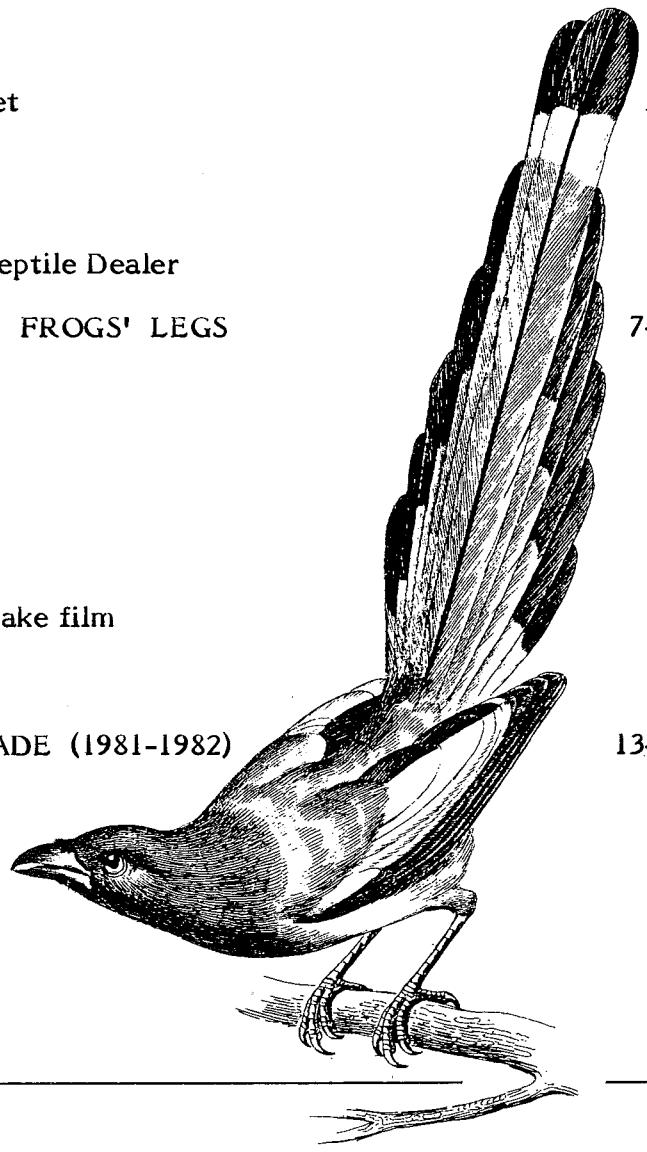
WILDLIFE TRADE MONITORING UNIT

Traffic Bulletin

Publication is funded by TRAFFIC (USA) and THE PEOPLE'S TRUST FOR ENDANGERED SPECIES

CONTENTS



VOL. VIII NO. 1

Date of publication: 30 April 1986

Somalia's Ivory Sale

The forthcoming sale of 51 tonnes (t) of ivory, comprising some 17 000 tusks, has recently been advertised in newspapers in many countries. Little further information was added apart from an address in Essex, UK, from where the tender documents could be obtained.

Many people have expressed surprise that such a quantity of ivory could be available for sale and that such a sale could be legal. However the tender documents reveal that the ivory was from stock held by the Somali Government and now owned by the Shirre Company, and that the sale was due to take place in Mogadishu, Somalia, in April.

Accompanying the tender documents was a report prepared for the Shirre Co. by a firm of consultants, Resource Management and Research (RMR), which contained a description of the ivory and the way it was stored, a report on an aerial census of elephant carcasses in Somalia, and a hypothetical breakdown of the tusk size classes and numbers that were for sale. The report indicated that most of the ivory was clearly of recent origin and that substantial substitution of the larger tusks by smaller ones had taken place. One of the more strange aspects of the report, however, was that the ivory was held in three 20-foot sea containers and was piled haphazardly to a height of 1.3 metres. The stock of ivory so described could not possibly have amounted to 51 t and led to a suspicion that there was a considerable shortfall from the advertised quantity.

It has been known for some time that the Somali authorities held a considerable store of ivory, possibly amounting to about 40 t, and more recent information (E. B. Martin, pers. comm.) suggested it was nearer 50 t. Somalia introduced a ban on hunting in 1970 and subsequently all confiscated ivory has become State property and held by the police for subsequent sale for the benefit of the State. It is further believed that in the early 1980s the Somali Government purchased all privately-held stocks of ivory in order to discourage elephant poaching and private ivory carving industries.

In recent years there has been heavy and indiscriminate poaching of elephants over much of Africa and attempts to "legalise" the ivory have taken many forms. Several consignments of ivory accompanied by forged Somali documents came on to the world's markets during 1985 and it was feared that the Somali stock was possibly being used to cover a laundering operation for illegally obtained tusks.

In order to clarify the situation caused by the confusing and conflicting reports in circulation concerning the Somali ivory, the CITES Secretariat sent a mission to Mogadishu on 10 March 1986 to inspect the ivory and to discuss the proposed sale with the Somali authorities in the light of Somalia's recent accession to CITES (2 March 1986) and the newly introduced international ivory quota system.

There were several major discrepancies between the Secretariat's observations in Mogadishu and the report produced by RMR which apparently arose from the following points:

a) RMR counted three rather than four containers;

b) RMR inspected the contents of only one container (the most atypical one) and wrongly assumed the others to have identical contents;

c) RMR misjudged the age of the ivory, claiming it to be of recent origin.

From a close examination of the ivory the CITES Secretariat is satisfied that there are 17 002 tusks weighing around 51 t, that the vast majority were acquired prior to 1982 since which time they have been held as Government property until being sold to the Shirre Company in May 1985, and that the tusks originate from the Somali/Kenyan Elephant population. The Secretariat saw no evidence that the original ivory had been replaced recently with fresh ivory to any significant extent.

The entire amount of 17 002 tusks, which comprises the entire quota for Somalia for this year, is due to be sold and exported before the end of April 1986 and should, therefore, forestall further attempts to launder illegally obtained ivory by giving it Somali identity. The CITES Secretariat urges that importation of ivory from this sale is only permitted after the Secretariat has received confirmation that the shipment is part of this stock. It is thought that any further ivory confiscated by the Somali Government will be held over for the 1987 export quota year.

J.R. Caldwell

Source: CITES Secretariat

Somali ivory smuggler with sacks of dried peas which concealed illicit ivory - part of the stock now offered at auction.

© Somali Wildlife Dept.

UK and USA Fine Plant Smugglers

On 28 January, a plant dealer in the UK was fined £1800 (US$2615) for smuggling cyclamen and orchid 'bulbs', in what appears to have been the first prosecution in the UK for an offence involving plants under the Endangered Species (Import and Export) Act 1976.

The dealer, Mr Walter Stagg of Avon Bulbs, Housel's Field, Westwood, near Bradford-on-Avon, UK had six sample offences brought against him; four for imports and two for exports, all between 1982 and 1986. At Bath Magistrates Court he admitted smuggling a total of 1536 bulbs, worth £1827, from Czechoslovakia, Greece and Japan and to F.R. Germany and Japan. For each offence he was fined £300 (US$435).The Wildlife Inspectorate of the UK CITES Management Authority assisted the Customs and Excise in preparing the case.

A few months earlier, on 29 August 1985, the first plant export conviction was achieved in the USA. On that day, Joseph Anthony of Texas pleaded guilty to illegally exporting twenty-five species of CITES Appendix I and Appendix II cacti from the USA to the UK in 1983. He was fined US$4000 and put on probation for two-and-a-half years.

Sources: UK Department of the Environment; TRAFFIC (USA)

Peccary Skins Seized in Paraguay

6000 peccary skins from Asunción, Paraguay were seized on 16 October 1985 at Carrasco Airport, Uruguay, on their way to Hamburg, F.R. Germany.

The dried skins, all believed to be from the Collared Peccary Tayassu tajacu, were packed in twenty-six bundles and weighed 4700 kg.

The consignment from Paraguay was addressed to Paul Fehns, Vogelweide O. and had been despatched by a Carlos Ordiera who had arranged the re-export permit. It was this permit which came to the attention of the Customs authorities. Paraguay banned all trade in wildlife and wildlife products in 1975, and although trade may be permitted in exceptional circumstances, it appears that no such permits have ever been issued.

The skins, with an estimated value of US$35 000, are currently being kept at an auction mart.

F.R. Germany appears to be the major importer of peccary skins and the importer, Paul Fehns, claims to import 36 000 skins from Paraguay every year (in litt.) (see Traffic Bulletin, 6(2)).

The only peccary species included in the CITES Appendices is the White-lipped Peccary Tayassu tajacu, which is in Appendix III for Guatemala.

Sources: TRAFFIC (South America); CITES Secretariat

Bolivia/USA Monkey Business

Bolivia's ban on the export of live wild animals, for one year from 1 May 1984, and later extended to 31 July 1986, had been the culmination of a three-year campaign for the Bolivian Wildlife Society (Prodena Bolivia). On 17 January TRAFFIC (USA) informed the International Primate Protection League who advised Prodena Bolivia that a total of 361 Night (Owl) Monkeys Aotus trivirgatus and Common Squirrel Monkeys Saimiri sciureus had arrived at Miami on 15 January, the first of 600 due to be exported from Bolivia under a special Ministerial Resolution instigated by the US Government. Prompt action resulted in the export being limited to the 361.

It was discovered that the dealers, Matthew Block and Gene Harris of Worldwide Primates Inc. of Miami, had been contracted by the US Agency for International Development (AID) to obtain 600 monkeys immediately, despite the ban, with 2000 to follow later 'for malarial vaccine research'. The Ministry of Agriculture in Bolivia quickly revoked the special Resolution when it realised there were irregularities, and requested that the monkeys be returned to Bolivia. AID apparently informed the US Fish and Wildlife Service and the State Department in Washington that this was impossible as all the animals had been dispersed to research centres immediately on arrival. On 28 February, it was found that only the twenty Night Monkeys had gone to a research centre, three of the Squirrel Monkeys were dead on arrival in Miami and the remaining 338 had been sent to Worldwide Primates Inc.

Sources: Bolivian Wildlife Society; TRAFFIC (USA)

No News of Pudus

In early 1985, a number of Southern Pudus Pudu pudu (CITES Appendix I), possibly forty, were imported from Chile by a pet shop owner in Mendoza, Argentina, with the authorisation of the Director Provincial de Parques y Bosques of Mendoza Province, Ing. Agr. Sr Formento. Half of the animals were sent to an unidentified person in Buenos Aires, another two to four were destined for Mendoza Zoo, and the importer kept the remainder, two of which later died. It is believed that some were also destined for a captive-breeding facility in Neuquén. Each animal was imported for US$1000.

On receiving this information at the fifth Conference of the Parties to CITES, the director of TRAFFIC (South America), Prof. Juan Villalba-Macías, immediately informed the CITES Management Authority, the Dirección Nacional de Fauna Silvestre, in Argentina. On 12 May, the director of TRAFFIC (Belgium), Dr Jean-Pierre d'Huart, visited the pet-shop "Pájaro Uno", in Mendoza. He was taken to a private holding pen, where four Pudu were being held and was informed that these were part of a consignment of twenty-five Pudus imported from Chile. He was unable to establish the whereabouts of the remaining twenty-one animals.

This information was sent to the CITES Management Authority in Argentina on 21 May, and the matter was directed to the Administración Nacional de Aduanas (Customs) for investigation. When the Argentinian authorities broke into the room where the Pudus were kept, the animals had gone. Meanwhile, Mr Eduardo Cruz from the CITES Management Authority in Chile confirmed, in a telephone conversation with TRAFFIC (South America), that no export permit for Pudus had been issued. Investigations indicate that the Pudus in Argentina had been imported under a false permit which identified them as a rare species of Mara Dolichotis spp.

TRAFFIC (South America) informed the Argentinian authorities that the Director Provincial de Parques y Bosques of Mendoza Province, or dependent officials, may have been involved in the illegal importation of Pudus to Mendoza. According to information sent to TRAFFIC (Belgium) by a contact in Mendoza, the Pudus are bought from a German person by natives in the Valdivia, in southern Chile.

TRAFFIC (South America) has so far received no explanation of these events, even though ten months have passed since the matter was first brought to the attention of the authorities in Argentina and Chile.

During the investigations of the above case, it was also found that, in the summer of 1984, seventy-two Pudu had been imported into Argentina, many of which died. Some were destined for Mendoza Zoo and others had been re-exported. It was established that eight bound for Belgium died at Brussels airport, and that others had been sent to zoos in F.R. Germany.

On 26 August 1985, TRAFFIC (South America) learnt that 300 Pudu had been caught in the Chiloé Archipelago of Southern Chile by a Mr Eugenio Mujica Mujica. 209 of these were apparently being kept on Imerquiña Island. The objective of this operation appeared to be the exportation of these animals via Argentina. There is not believed to be any connection between these Pudus and those imported by the pet shop owner in Mendoza.

Sources: TRAFFIC (South America); TRAFFIC (Belgium)

Birds at the Bangkok Weekend Market

by Tim Inskipp

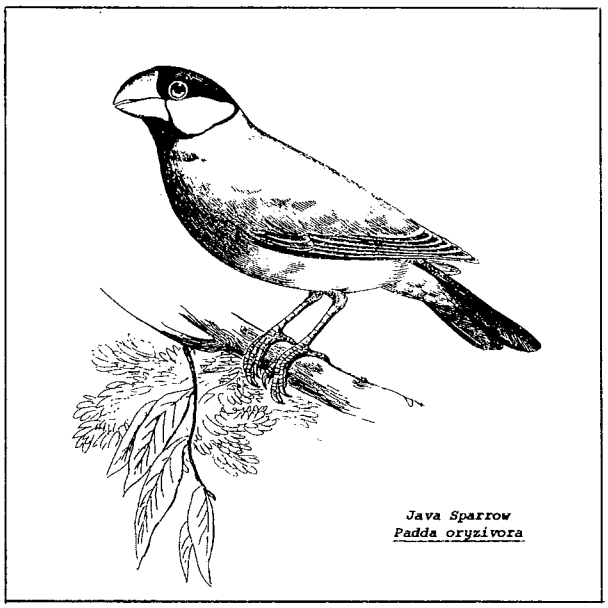
The Bangkok Weekend Market was visited on 8 December 1985. All of the stalls selling birds were examined and a list made of the species present. It was not possible in the time available to count the number of individuals of each species, but an estimate was made of the total number of birds of all species and a rough indication of the number of each species was added subsequently.

A total of 5540 birds was estimated to be present, comprising ninety-six species known to occur in Thailand and a further nine non-native species (see opposite and overleaf). The groups most commonly represented were the parakeets (Psittacula), starlings and mynas (Sturnidae) and estrildids (Estrildidae). All except nine of the native species are protected in Thailand. Under the terms of the Wild Animals Reservation and Protection Act, B.E. 2503 (1960 A.D.), and subsequent amendments (Announcement of the Revolutionary Party No. 228), live capture of protected animals is permitted only for educational or scientific purposes, and a permit is required in advance. Trade in and export of some protected species is allowed under licence - for 1985/86 quotas were set for thirty-four species (Round, 1985), including twenty-one species seen during the visit to the Weekend Market. It is possible that the capture of and trade in all of the wild-collected species at the Market, except the twenty-one subject to quotas and nine unprotected species, may have been illegal. Most of the species recorded at the Market are relatively common in Thailand and not subject to any particular threats; however two species are regarded as "threatened": Siamese Fireback Lophura diardi and Alexandrine Parakeet Psittacula eupatria; and two species are regarded as "vulnerable": Bar-backed Partridge Arborophila brunneopectus and Black Magpie Platysmurus leucopterus (Round, 1985).

Few data were collected on the prices being asked for the birds because there were no prices openly displayed. The following are samples referring mainly to the more valuable birds:- White-bellied Sea-eagle, 3000 baht (US$109), Siamese Fireback, 3200 baht a pair ($116), Shama - best quality songster - 1500 baht ($55), Spotted Dove, 350 baht ($13), Black-collared Starling, 30 baht ($1).

Little has been published on the birds sold at the Weekend Market since the detailed study carried out by H. Elliott McClure and Somtob Chaiyaphun (1971). They visited the Market on eighty-two Saturday mornings during the period November 1966 through January 1969, identifying and counting all the birds present. They recorded a total of 619 090 birds comprising 370 species. This included 515 568 birds of 297 species native to Thailand. December was an important month for sales with an average of 8684 birds present per visit and 11.2 per cent of the total number recorded during that month. The pattern of sales has apparently changed in recent years, as indicated by the smaller total number (5540) and the different species present on 8 December 1985. Sixteen of the species seen recently were not recorded at all by McClure and Chaiyaphun and fifteen other species were not recorded by them in the month of December.

The species most commonly recorded during 1966-1969 are quite different from those seen in large numbers in December 1985. The ten commonest species during the earlier period (in descending order of importance) were Yellow-breasted Bunting Emberiza aureola, Pin-tailed Parrotfinch Scaly-breasted Munia, Zebra Dove, Baya Weaver Ploceus philippinus, Chestnut Munia, White-shouldered Starling, Red-whiskered Bulbul, Spotted Dove and Japanese Quail. During the 1985 visit, two of these were not recorded at all and only the Zebra Dove was present in large numbers. The reason for the complete absence of Yellow-breasted Buntings and Baya Weavers is not clear but it may be significant that many birds of both these



Java Sparrow
Padda oryzivora

species were sold to Buddhists who wished to gain merit for performing an act of "kindness" by releasing a captured bird. Round (1985) points out that the Weekend Market is "only one of a series of major outlets for the sale of wildlife", so it is possible that the sale of birds for release now takes place elsewhere. An alternative explanation is that the birds are used for other purposes; in 1982 licences were granted to export at least 45 000 kg of dead wild birds to Japan. Most of the birds involved were apparently Yellow-breasted Buntings (Anon., 1982). The sale of small birds for release in the Weekend Market was still taking place commonly in October 1975 (Burton, 1975), so their disappearance is presumably a fairly recent phenomenon.

The number of birds exported from Thailand has fluctuated considerably during the last twenty years but recently there has been a sharp decline. The following figures are the total number of birds exported in the given years:-

1967	84417	1977	242548	1981	647420
1968	133570	1978	374328	1982	92286
1969	170247	1979	371218	1983	27098
1970	255888	1980	416625	1984	19053
1971	204581				

Sources: 1967-71 Pong Leng Ee (1974)
1977-84 Foreign Trade Statistics of Thailand, Dept. of Customs, Bangkok.

References

Anon. (1982):
Trade in wild birds. Conservation News, S.E. Asia, May 1982.

Burton, J.A. (1975):
Bangkok Bird Market. Birds International 1(3):40-44.

McClure, H.E. and Chaiyaphun, S. (1971):
The sale of birds at the Bangkok "Sunday Market" Thailand. Natural History Bulletin of the Siam Society 24:41-78.

Pong Leng Ee (1974):
Wildlife trade in Thailand. International Zoo Yearbook 14:23-28.

Round, P.D. (1985):
Status and conservation of resident forest birds in Thailand. Unpublished report to the International Council for Bird Preservation. 143 pp + appendices.

BIRDS AT BANGKOK WEEKEND MARKET
8 December 1985

Species Known to Occur in Thailand	No. seen
P* Lesser Whistling Duck (Dendrocygna javanica)	S
P Black-shouldered Kite (Elanus caeruleus)	6
P* White-bellied Sea-eagle (Haliaeetus leucogaster)	1
P* Shikra (Accipiter badius)	1
Q Chinese Francolin (Francolinus pintadeanus)	S
Japanese Quail (Coturnix japonica)	M
+ Rain Quail (C. coromandelica)	S
P+ Bar-backed Partridge (Arborophila brunneopectus)	S
P Scaly-breasted Partridge (A. chloropus)	S
P+ Siamese Fireback (Lophura diardi)	6
P* Red Junglefowl (Gallus gallus)	S
Little Buttonquail (Turnix sylvatica)	S
P* Yellow-legged Buttonquail (T. tanki)	S
Q White-breasted Waterhen (Amaurornis phoenicurus)	S
Q Purple Swamphen (Porphyrio porphyrio)	S
P Pheasant-tailed Jacana (Hydrophasianus chirurgus)	S
Q Thick-billed Pigeon (Treron curvirostra)	M
P Pink-necked Pigeon (T. vernans)	M
P Orange-breasted Pigeon (T. bicincta)	M

Species Known to Occur in Thailand	No. seen
P* Green-eared Barbet (M. faiostricta)	M
P Red-throated Barbet (M. mystacophanos)	1
P+ Golden-throated Barbet (M. franklinii)	S
P* Blue-eared Barbet (M. australis)	S
P Coppersmith Barbet (M. haemacephala)	M
P* Blue-winged Pitta (Pitta moluccensis)	2
P Greater Green Leafbird (Chloropsis sonnerati)	M
P Golden-fronted Leafbird (C. aurifrons)	M
P Blue-winged Leafbird (C. cochinchinensis)	M
P Straw-headed Bulbul (Pycnonotus zeylanicus)	1
P Black-headed Bulbul (P. atriceps)	1
P Black-crested Bulbul (P. melanicterus)	M
P Scaly-breasted Bulbul (P. squamatus)	I
P Red-whiskered Bulbul (P. jocosus)	M
P Ashy Bulbul (Hypsipetes flavala)	S
P+ Black Bulbul (H. madagascariensis)	S
P* Spangled Drongo (Dicrurus hottentottus)	S
P Greater Racket-tailed Drongo (D. paradiseus)	S
P+ Black-naped Oriole (Oriolus chinensis)	S

Species Known to Occur in Thailand	No. seen
P+ Scaly Thrush (Zoothera dauma)	1
P Eye-browed Thrush (Turdus obscurus)	S
P+ Tickell's Blue Flycatcher (Cyornis tickelliae)	S
P* Black-naped Monarch (Hypothymis azurea)	S
Philippine Glossy Starling (Aplonis panayensis)	M
Chestnut-tailed Starling (Sturnus malabaricus)	M
White-shouldered Starling (S. sinensis)	M
P Asian Pied Starling (S. contra)	L
P Black-collared Starling (S. nigricollis)	L
P Vinous-breasted Starling (S. burmannicus)	M
P Common Myna (Acridotheres tristis)	L
P White-vented Myna (A. javanicus)	L
P Golden-crested Myna (Ampeliceps coronatus)	M
Q Hill Myna (Gracula religiosa)	M
P+ Yellow-breasted Flowerpecker (Prionochilus maculatus)	S
P Orange-bellied Flowerpecker (Dicaeum trigonostigma)	S
P+ Japanese White-eye (Zosterops japonica)	M
P Oriental White-eye (Z. palpebrosa)	L
P+ Everett's White-eye (Z. everetti)	S

+ = species not recorded by McClure and Chaiyaphun (1971)
* = species not recorded in December by McClure and Chaiyaphun (1971)
S = small numbers
M = medium numbers
L = large numbers
P = species protected in Thailand
Q = quotas

BIRDS AT BANGKOK WEEKEND MARKET (ctd)
8 December 1985

Species Known to Occur in Thailand	No. seen
P Mountain Imperial Pigeon (Ducula badia)	S
P* Barred Cuckoo-dove (Macropygia unchall)	S
P* Little Cuckoo-dove (M. ruficeps)	S
P Red Turtle-dove (Streptopelia tranquebarica)	M
Q Spotted Dove (S. chinensis)	M
Q Zebra Dove (Geopelia striata)	L
P Green-winged Pigeon (Chalcophaps indica)	S
P Alexandrine Parakeet (Psittacula eupatria)	M
Q Red-breasted Parakeet (P. alexandri)	L
Q Blossom-headed Parakeet (P. roseata)	L
Q Grey-headed Parakeet (P. finschii)	L
Q Vernal Hanging Parrot (Loriculus vernalis)	L
P+ Large Hawk-cuckoo (Cuculus sparverioides)	I
Q Common Koel (Eudynamys scolopacea)	S
P Indian Roller (Coracias benghalensis)	S
P Great Barbet (Megalaima virens)	M
P Lineated Barbet (M. lineata)	M

Species Known to Occur in Thailand	No. seen
P Asian Fairy-bluebird (Irena puella)	M
+ Eurasian Jay (Garrulus glandarius)	S
P Green Magpie (Cissa chinensis)	S
P Rufous Treepie (Dendrocitta vagabunda)	S
P Racket-tailed Treepie (Crypsirina temia)	S
P* Black Magpie (Platysmurus leucopterus)	S
P* Large-billed Crow (Corvus macrorhynchos)	S
P* White-browed Scimitar-babbler (Pomatorhinus schisticeps)	M
Q White-crested Laughing-Thrush (Garrulax leucolophus)	M
Q Lesser Necklaced Laughing-Thrush (G. monileger)	M
Q Greater Necklaced Laughing-Thrush (G. pectoralis)	M
Q+ White-necked Laughing-Thrush (G. strepitans)	M
P Black-throated Laughing-Thrush (G. chinensis)	M
Q+ Chestnut-crowned Laughing-Thrush (G. erythrocephalus)	M
P+ Silver-eared Mesia (Leiothrix argentauris)	M
P Asian Magpie-robin (Copsychus saularis)	M
Q White-rumped Shama (C. malabaricus)	M

Species Known to Occur in Thailand	No. seen
Plain-backed Sparrow (Passer flaveolus)	1
P Streaked Weaver (Ploceus manyar)	M
Q Pin-tailed Parrotfinch (Erythrura prasina)	L
Q Scaly-breasted Munia (Lonchura punctulata)	L
Q Chestnut Munia (L. malacca)	L
Species not native to Thailand:	
Red Lory (Eos bornea)	S
Blue-streaked Lory (Eos reticulata)	S
Dusky Lory (Pseudeos fuscata)	S
Rainbow Lorikeet (Trichoglossus haematodus)	S
White Cockatoo (Cacatua alba)	S
Rose-ringed Parakeet (Psittacula krameri)	M
Collared Dove (Streptopelia decaocto)	M
Red-billed Leiothrix (Leiothrix lutea)	M
Java Sparrow (Padda oryzivora)	M

+ = species not recorded by McClure and Chaiyaphun (1971)
* = species not recorded in December by McClure and Chaiyaphun (1971)
S = small numbers
M = medium numbers
L = large numbers
P = species protected in Thailand
Q = quotas

Nomenclature follows that used by King, B., Woodcock, M. and Dickinson, E.C. (1975) A Field Guide to the Birds of South East Asia.

Argentina's Trade Bans

Argentina has issued four resolutions pertaining to trade in wildlife. Trade within the country and the export of the following species has been banned:

Greater Rhea	Rhea americana
Boa Constrictor	Boa constrictor occidentalis
Yellow Anaconda	Eunectes notaeus
Pampas Cat	Felis colocolo
Geoffroy's Cat	Felis geoffroyi
Kodkod	Felis guigna
Margay	Felis wiedii
Little Spotted Cat	Felis tigrina
South Brazilian Ocelot	Felis pardalis mitis
Jaguarundi	Felis yagouaroundi
Andean Cat	Felis jacobita
Puma	Felis concolor

In addition, an indefinite ban has been placed on the internal trade and the export of all live indigenous fauna, with the exception of those species considered to be pests, those which have been bred in captivity by registered establishments and, with regard to export, those considered to be of scientific interest. The Resolutions were published in the 'Oficial Boletin' in February and March and traders have been given 180 days to dispose of their stocks.

Sources: TRAFFIC (South America); CITES Secretariat

Ivory Smugglers Heavily Fined

Zaire is beginning to take serious action against ivory poachers. 530 elephant tusks, weighing 2760 kg were recently recovered by wildlife guards from an overturned truck near the Virunga National Park in Zaire.

This represents one of the biggest seizures of illegal ivory in Zaire for many years. The Guinean driver of the truck was sentenced to eight years in prison without bail, fined Z100 000 (approx. US$2000) to be paid to the State and 26 million (US$650 000) payable to the Zaire Insititute for the Conservation of Nature to compensate for the elephants that were killed.

In a similar case in 1984, the contents of a truck loaded with 124 tusks weighing 239 kg were confiscated and the driver, another Guinean, received only a suspended twelve months' sentence.

Source: WWF News No. 38, 1985

Canned Snakeskins Seized in India

In southern Cochin, India, a consignment cleared by Customs for export to Singapore in September 1985 was subsequently found to contain snakeskins worth US$1.6 M.

The consignment of 400 tins, supposedly containing cashew kernels, was being loaded onto a ship when one of the tins was accidentally smashed open. A worker became suspicious when pebbles and sand seeped from the tin, and he alerted Customs. On re-examination of the shipment, only 140 tins were found to contain cashew kernels. The remainder contained snake skins of various sizes.

Six Indians were arrested. News of the case is awaited.

Source: Straits Times (Singapore), 11.9.85

Netherlands Seizes Cacti

Two large cacti shipments were seized at Schiphol Airport in the Netherlands in 1985.

The first, consisting of 327 specimens, mainly of Discocactus and Melocactus species, was seized on 2 September 1985. The shipment came from Brazil, was shipped by Fazienda Ribeirao Holambra, Jaguarine Est. Sao Paulo, a well-known cactus grower, and was destined for a cactus nursery, 'Hovens' in Lottum, the Netherlands, although part of the shipment was for a Belgian collector. The CITES permit issued by the Brazilian Management Authority stated that all plants were artificially propagated. When the shipment was checked, however, it turned out that most, and probably all, of the plants were wild-collected. Further investigation revealed that the plants were collected in Brazil by Dr W. Strecker, a private, German collector. The Dutch grower said he was unaware that the plants were illegally shipped, and that he had expected to receive artificially propagated plants.

The second, much larger shipment, was seized in the first week of December 1985. This had been shipped by 'Southamerican Plants' of Lima, Peru, and was also accompanied by a valid CITES permit for about 4400 cactus specimens, all artificially propagated: 10000 Islayas, 1600 Borzicactus, 200 Cereus, 320 Copiapoa, 1000 Rebutia and 300 Melocactus.

When the shipment was checked it was discovered that it contained species other than those listed on the export permit, that all the plants had been wild-collected and that not all of them had originated in Peru; the genus Copiapoa, for instance, occurs only in Chile. After the Dutch CITES Management Authority checked with the CITES Secretariat and the Peruvian authorities, the shipment was declared illegal and was confiscated. Although the consignee claimed to be a private collector without commercial interest, an advertisement appearing in a local paper (Haagse Courant, 12.12.85) stated that the same 'Cactus Specialist' had in stock 1500 rare plants from Peru.

Sources: Netherlands CITES Management Authority; TRAFFIC (Netherlands)

Egg Smugglers Arrested

Twenty-six eggs of the rare Lannar Falcon Falco biarmicus (Appendix II), worth £18 000 (US$26 168), were recently smuggled into Manchester Airport, UK, on a flight from Agadir, Morocco. Two men and a woman were arrested.

Source: The Guardian (UK) 17.3.86

UK Fines Reptile Dealer

On 29 November 1985, a British reptile dealer, William Nigel Adams, was charged £60 (US$87) at Croydon Magistrates Court, UK, for illicit dealing involving one Radiated Tortoise Geochelone radiata (CITES Appendix I) and £60 for illegally acquiring one Madagascan Tree Boa Sanzinia madagascariensis (Appendix I).

Source: H.M. Customs & Excise, UK

The International Trade in Frogs' Legs

by Manfred Niekisch, TRAFFIC (Germany)

INTRODUCTION

The international trade in frogs' legs has increased substantially over the last twenty years. This is well illustrated by the Customs export statistics of India, Bangladesh and Indonesia (Table 1). The volume exported from India in 1983 was seven times higher than it was in 1963 and, from Bangladesh, eight times higher than in 1977. Exports from Indonesia doubled in weight from 1980 to 1983.

The increased exports are evidently due to a higher demand for frogs' legs in the consuming countries and were made possible by better freezing techniques and improved transport facilities within the countries of export.

This article does not discuss the humanitarian aspects of the collection and killing of frogs.

Source Countries

Bangladesh, India and Indonesia are the major exporters of frogs' legs. Although no export figures are available for other countries of origin, the leading role of these three countries is clearly shown by the Customs import statistics of the consuming countries (Tables 2-6).

The Belgian Customs import statistics (Table 2), indicate that the USA, F.R. Germany, Switzerland, France, and the Netherlands are also significant exporters of frogs' legs. From the information available, and an examination of "French frogs' legs", it is clear that frogs' legs exported from France and the Netherlands are in fact from Asian frogs which have been processed or packed in Europe for re-export. This appears to be true for every mid- or north European country declared as a source country.

In the countries of the European Economic Community (EEC), Customs import statistics for frogs' legs appear in the category "whalemeat, sealmeat and frogs' legs" (cf. Tables 2-3) and live frogs under "other live animals, mainly for human consumption" (other than domestic livestock). The import of whale meat into the EEC for commercial purposes has been banned since 1 January 1982 and, as there is no evidence of seal meat being imported, the figures in the former category probably refer entirely to frogs' legs.

The Swiss CITES annual reports give the amounts of live frogs (used for "scientific purposes") and frogs' legs imported (Table 6). These figures include Egypt, Greece, Romania and Turkey as exporters to Switzerland of live frogs and frogs' legs. In all these countries frogs are still collected for local consumption and export, and as they do not appear to be importing frogs' legs and live frogs, their exports of frogs and frogs' legs are probably from populations within these countries.

Frogs' legs imports to the EEC might possibly have originated in south-east European countries but, if so, the volume would be negligible compared to imports originating in Asia.

Imports to Italy in 1983 amounted to 114.5 t, from Albania, Turkey and F.R. Germany. But the Italian imports from January to September 1984, of about 114.8 t, nearly all came from India, only a little being imported from Albania and Turkey (P.L. Florio, in litt., 1984).

European imports from the USA (Tables 2-3) may include US re-exports of Asian frogs' legs, as well as the export of legs of Rana catesbeiana the American Bullfrog caught in the USA (Hemley, in litt., 1984).

Although experimental frog farms of various scales have been established and run in the past, and some small-scale farms do exist now (for example in Brazil), there is no evidence that any farms exist, breeding frogs on a commercial scale for human consumption.

The volume of trade

According to Customs export statistics, Bangladesh, India and Indonesia exported about 10 000 000 kg of frogs' legs in 1983. As the average weight of a pair of frogs' legs is not more than 50 g, the minimum number of frogs exported from these three countries in 1983 was about 200 000 000.

The best historical trade figures relate to exports from India. The Indian statistics indicate that, up to 1969, exports of frogs' legs from that country had been well below 1000 t, peaking at about 854 t in 1969. The following year, exports apparently soared to over 2500 t and since then they have fluctuated between about 1300 t and 3900 t annually, but have not dropped below 2800 t since 1977.

Data on exports from Bangladesh (Table 1) show that, while the total fluctuated between about 400 t and 1200 t from 1977 to 1981, the 1983 exports reached a peak, at over 3000 t. Exports from Indonesia have reached about the same level.

The number of frogs killed is much higher than indicated by the export figures, because many frogs are dead on arrival at the processing plants and cannot be exported. In India, according to Whiting (1984), these may account for twenty per cent of the frogs caught, and Whitaker (1982) considers the "wastage" accounts "conservatively" for ten per cent. In Indonesia forty to fifty per cent more frogs are killed than exported because of the "lack of export quality" (Anon., 1985a). Thus the number of frogs caught annually in India, Bangladesh and Indonesia probably exceeds 250 million (M).

Species in Trade

Frogs' legs in international trade are taken mostly from Rana tigerina the Indian Bullfrog, to a lesser extent from Rana hexadactyla the Six-fingered Frog, and occasionally from other Asian Rana species.

Rana tigerina accounts for more than ninety-nine per cent of frogs' legs exports from Bangladesh (Khan, in litt., 1984). According to Khan, R. hexadactyla may be caught occasionally but is an uncommon species in Bangladesh and is restricted to the coastal belt. Whitaker (1982) also mentions R. tigerina as the "main species" caught in Bangladesh, and that it is likely that Rana cyanophlyctis the Skittering Frog and Rana limnocharis the Paddy (Streaked Cricket) Frog are also caught. Fugler (1983) has noted that R. tigerina and possibly R. hexadactyla and R. limnocharis are of significant economic value in Bangladesh.

In India, Whiting (1984) has observed that four species, mainly R. tigerina and R. hexadactyla are collected. According to Abdulali (1985), R. tigerina and R. hexadactyla, a large number of Rana crassa, and R. cyanophlyctis are captured and packed for export.

In Indonesia, where frogs' legs have been exported since 1969, Rana cancrivora the Mangrove (Crab-eating) Frog, Rana blythi Blyth's Frog, Rana arfarki, Rana macrodon, Rana modesta, and R. limnocharis are also collected for export (Sugiri, 1985).

R. catesbeiana is collected mainly for local consumption in the USA and for export to Italy.

Parent (1983) considers frog catching for human consumption in Wallonia, Belgium, to be the main factor in the decline of Rana temporaria the Common Frog. Although it is illegal, at least 300 000 frogs are caught annually by thirty catchers in the vicinity of one small town in the Belgian province of Luxembourg; Rana esculenta/Rana lessonae the Edible/Pool Frog are also consumed, but less commonly (Parent, 1983). In Italy

TABLE 1
Exports of Frogs' Legs (kg) and currency earned

Year	India[1]	Rs earned[1]*	Bangladesh[2]	Rs earned[3]*	Indonesia[4]
1963	514000	3192000	-		-
1964	332000	1650000	-		-
1965	443000	2604000	-		-
1966	557000	5576000	-		-
1967	786000	8817000	-		-
1968	425310	4891310	-		-
1969	854370	11889563	-		-
1970	2544870	32899364	-		-
1971	1451140	13774273	-		-
1972	1823480	21709398	-	1165	-
1973	269760	44878893	-	2437	-
1974	1453960	28651727	-	98	-
1975	1317480	27982525	-	11822	-
1976	3169880	77969621	-	15196	-
1977	2834200	65966878	372075	21435	-
1978	3570000	84300000	1184234	71239	-
1979	3764000	87200000	987492	32060	-
1980	3095000	73200000	670935	41717	1517341
1981	4368000	119600000	1204055	112788	1611943
1982	2271000	55453406	-		2775982
1983	3658000		3100000		3295741
1984	-		-		544975**

Sources: [1] Abdulali, 1985; [2] Fugler, 1983, Huda, 1984;
[3] Export Promotion Bureau, after Khan 1982; [4] Sugiri, 1985.

* = July to June
** = until April

TABLE 2
Imports of "Whale, Seal Meat and Frogs' Legs" (kg) into Belgium

Exporter	1977	1978	1979	1980	1981	1982	1983	1984*
France	68200	39300	84700	104400	124500	192900	165500	31500
Netherlands	65300	126100	202900	169300	187300	124400	420200	118300
F.R. Germany	0	11400	10200	19800	4700	11000	8600	300
UK	1300	0	0	0	0	13200	0	0
Italy	0	600	0	0	0	0	0	0
Denmark	0	0	0	0	0	10400	0	0
Spain	0	0	0	0	11700	0	0	0
Switzerland	0	0	0	2200	0	0	0	0
USA	23600	0	14500	21800	0	18700	0	0
West Indies	500	0	0	0	0	3000	0	0
India	78600	100000	103400	117500	210700	189000	103200	142600
Bangladesh	59100	21600	35400	30900	53300	27200	309900	52000
Indonesia	379700	495200	474500	285400	375100	373500	377600	139000
Hong Kong	13600	0	0	0	14300	6600	0	0
Singapore	0	1100	0	0	0	0	0	0
Malaysia	0	0	0	0	0	52200	0	0
China	0	0	0	0	105800	0	37000	0

Source: National Statistics Office, Belgium.

* = first half of year only

TABLE 3
Imports of "Whale, Seal Meat and Frogs' Legs" (kg) into F.R. Germany

Exporter	1979	1980	1981	1982	1983	1984
Belgium and Luxembourg	0	14000	20400	13600	2700	0
Denmark	0	0	0	0	200	0
France	55300	61000	67700	112100	54000	94600
Netherlands	19800	17000	0	19200	54400	12700
EC unspecified	0	11200	6600	5800	-	2400
Turkey	0	0	0	0	1500	0
USA	0	0	0	0	2000	0
India	163100	145100	242300	149200	135100	89700
Bangladesh	223800	196400	237600	213400	282300	150800
Indonesia	53400	30800	7400	22700	6100	0

Source: National Statistics Office, F.R. Germany.

R. esculenta/R. lessonae are offered regularly for local consumption.

Clearly most frogs' legs in trade come from Asia, largely from R. tigerina. Frog catching occurs mainly during the monsoon season, from May to October, when spawning of R. tigerina is at its peak. The animals are collected from ponds and rice-fields at night time with the use of hand lamps to spot them. In some parts of India (Gujarat, Bengal, Andhra Pradesh) collection continues during the aestivation period when the frogs are dug out of their aestivating holes (Abdulali, 1985).

TABLE 4
Imports of Frogs' Legs (kg) into the Netherlands

Exporter	1982	1983
India	303000	111000
Bangladesh	502000	467000
Indonesia	98000	212000
other countries	-	222000

Effects of collection on wild frog populations in Asia

While much information is available on the status of amphibians in Europe, little research has been carried out on populations in Asia. For Bangladesh and India, however, there are data which show that frog collecting is affecting populations of Rana tigerina. Khan (in litt., 1984) states that this species is declining at an alarming rate and blames collection for consumption in western countries.

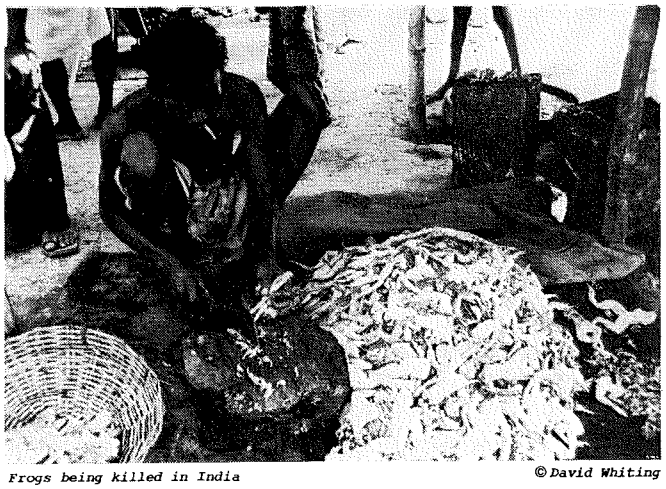
In Bangladesh, field studies carried out by Fugler (1983) and his analysis of diverse population samples, indicate that the wild stock of R. tigerina is over-exploited and that population densities have decreased significantly. Fugler's studies led to the conclusion that wild populations are seriously depleted and that relatively few individuals survive three reproductive cycles.

In India, Abdulali (1985) carried out a survey of farmers, through questionnaires sent to 1650 local police stations, in the districts of Thane and Kulaba, to determine if the number of frogs had been reduced in these areas over the last five years. Of the 588 replies received, 582 stated that there was a considerable depletion in the number of frogs. Some said that the species had disappeared from their area, while others reported decreases of fifty to ninety per cent.

Indonesia has recently started a national restocking programme for over-exploited populations, but according to Sugiri (1984) frogs are collected faster than they can be replaced.

The results of the research done by Abdulali (1985) for India, and by Fugler (1983) for Bangladesh, leave no doubt that exploitation is a very important, if not the most important, factor in the decline of R. tigerina in these countries.

The use of pesticides is also believed to have played a role in the decline of frog numbers.



Frogs being killed in India *© David Whiting*

Economic importance

Islam forbids the consumption of frogs, but allows their collection, breeding and sale (Komisi Fatwa, 1984). For Brahmins, frogs form part of a religious ritual in Indonesia and, in Asia, frogs are eaten by some ethnic groups or in some regions only occasionally. Hence their economic importance is derived from foreign trade.

In Bangladesh, villagers earn approximately 2 Taka (US$0.6) for large specimens of R. tigerina; in one night during the monsoon season they can earn up to 40 Taka (Fugler, 1983). In India, live frogs are purchased by middle men at prices between Rs 2 (US$0.16) and Rs 4.50 (US$0.36) per kg. As the weight of the legs is only approximately one third of the frog's weight, the base cost of the legs is Rs 6 - Rs 13.50 a kilogramme (Abdulali, 1985). In some parts of India, Indonesia and Bangladesh during the monsoon season, villagers earn a significant part of their income from frog-collecting.

Table 1 shows that trade in frogs' legs is an important factor in foreign trade for India and Bangladesh. Indonesia is planning to increase its exports (Anon., 1985a).

It has been well argued that against the economic gain obtained from the sale of frogs' legs, certain losses should be considered. Most notably large amounts are spent on importing pesticides to combat rice crop pests that might otherwise have been kept in check by the bullfrogs. For a detailed discussion of this subject, see Abdulali (1985).

Trade restrictions

In Bangladesh a ban on the collection of R. tigerina, R. hexadactyla and R. limnocharis was imposed in 1982, 1983 and 1984 from 15 April to 15 May. The ban was annulled on 10 May, 1984 (SCONE Bulletin, 14.6.84). However, it had been widely ignored and frogs were collected and kept in holding tanks for export after the end of each yearly export ban. In 1985 Bangladesh re-established an export ban to run from 15 April to 15 July.

In India a ban on the export of frogs that were collected from 15 June to 15 August has proved ineffective in the absence of ways to check the date of collection. All species of Rana are protected in India under the Wildlife (Protection) Act 1972. Collectors and processors have to obtain licences from regional offices which also have to control the quantities caught. In 1984 India established an export quota of 4000 and reduced this to 2500 t in 1985 (Abdulali, 1985).

At the fifth meeting of the Conference of the Parties to CITES, held in Buenos Aires, Argentina, in April/May 1985, the delegation of India said that their Government was considering further reduction of the quota over the next few years or even an export ban for some years. The proposal presented at that meeting by F.R. Germany (prepared by TRAFFIC (Germany)) to list R. tigerina and R. hexadactyla on Appendix II of CITES, was adopted in the light of growing concern over the plight of frogs in Asia.

Frogs can also cause problems for humans. In 1973 the USA banned the import of frogs' legs from Asia for one year, because of fear of salmonella infection.

In April 1985 the Government of Taiwan issued a warning to restaurants, consumers and retailers not to buy bullfrogs, as checks by the Department of Health on frogs for sale at markets had led to the discovery that some frogs were carrying typhoid of the bacterium vibrio parahaemolyticus" (Anon., 1985b).

TABLE 5
Imports of Frogs' Legs (kg) into the USA

Exporter	1981	1982	1983	1984
India	1850358	1936540	897992	1866138
Bangladesh	955319	999387	1296643	1366979
Indonesia	-	-	6119	1281
China	27821	117640	-	92932
Japan	285384	82524	107101	92215
Thailand	-	1512	3622	2513
other countries		97961	70155	135512
286916				

Source: Jorgenson, 1985

REMARKS

The trade in frogs' legs is an important source of income for villagers in Bangladesh and India. But there are also negative environmental effects and any discussions about the need to export frogs' legs has to be seen in this light.

If trade in frogs' legs cannot be replaced by other sources of income, then new control strategies, development aid programmes and culturing techniques need to be developed in order to guarantee a sound source of income on a long-term basis to villagers who now partially depend on the collection of frogs and who have to live also with the increasing detrimental consequences.

Acknowledgements

The author wishes to thank all those who have provided him with information on the subject, especially: Md. Farid Ahsan (Chittagong), Prof. Charles M. Fugler (Wilmington), René Honegger (Zurich), Dr Reza Khan (Abu Dhabi), Rolf Moltgen (Bonn) and David M. Whiting (Kent).

Special thanks go to Mrs Maya Schley (Frankfurt) for her translations of some Indonesian articles.

References

Abdulali, H. (1985):
On the export of frog legs from India. Bombay Natural History Society 82 (2):347-356.

Anon. (1981/2/3):
Aussenhandel nach Waren und Ländern (Spezialhandel). Statistisches Bundesamt Wiesbaden.

Anon. (1985a):
Hallo Manusia - Harga Sepolong Paha. Suara Alam 31:9-11.

Anon. (1985b):
Straits Times 28.5.85, Singapore.

Fugler, C.M. (1983):
The status of population of Rana tigrina Daudin in Bangladesh. Fisheries Information Bulletin 1(4):1-51. Dhaka.

Fugler, C.M. (1984):
Biological notes on Rana tigerina in Bangladesh and preliminary bibliography. Smithsonian Herpetological Information Service 60:1-17.

Honegger, R.E. (1984):
Fröschschenkel. Tages Anzeiger Mag. 18:35-39. Zurich.

Huda, N. (1984):
Frösche oder Pestizide fur Bangladesh. Earthscan, London. 2pp.

Jorgenson, A. (1985):
Biologists express concern for huge trade in bullfrogs. TRAFFIC (USA) 6(2):25-26.

Khan, R. (1982):
Checklist: Wildlife of Bangladesh. Dhaka University, Bangladesh. 173pp.

Komisi Fatwa Majelis Ulama Indonesia (1984):
Keputusan Komisi Fatwa Tentang Hukum Memakan Dan Membudidayakan Kodor. Suara Alam 31:12.

Parent, G.H. (1983):
Animaux menacés en Wallonie. Protégeons nos batraciens et reptiles. 172pp.

Sugiri, O.N. (1985):
Perlukah Kodok Dilestarikan. Suara Alam 31:50-51.

Whitaker, R. (1982):
Bangladesh - a general survey. Hamadryad 7(3):4-12. Madras.

Whiting, D.R. (1984):
Frogs' legs - a study in cruelty and short-sighted stupidity. AGSCENE 75:2-4. Petersfield, UK.

TABLE 6
Import of Frogs' Legs and Live Frogs (kg) into Switzerland and Leichtenstein

Exporter	LIVE FROGS							FROGS' LEGS
	1975*	1976	1977	1978	1979	1980	1984	1984
France	0	0	0	450	0	330	1232	28707
F.R. Germany	-	-	-	-	-	-	0	500
Italy	-	-	-	-	-	-	0	1096
Greece	0	0	20910	24645	27383	37848	8593	7900
Yugoslavia	5579	8146	9737	3558	6584	11977	6728	0
Hungary	8957	14972	1516	3061	1027	1266	0	0
Romania	0	0	0	820	0	0	0	12856
Bulgaria	17130	8274	5230	8159	33187	24378	42459	0
Turkey	30180	61465	76606	35376	71365	69367	92225	28261
Egypt	0	3310	4015	3601	6600	1100	9711	-
India	-	-	-	-	-	-	0	4545
Bangladesh	-	-	-	-	-	-	0	28000
Indonesia	-	-	-	-	-	-	0	54727

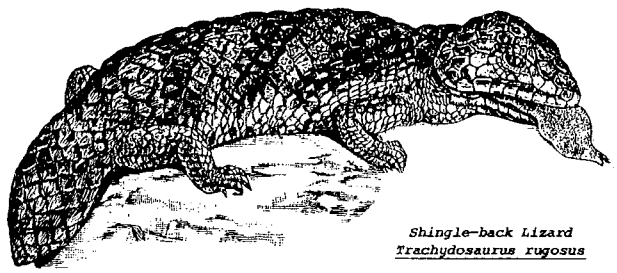
Sources: Honnegger 1984;
Swiss CITES Annual Report, 1984

* = July-December

Reptile Smuggler Fined

On 22 September 1985, a 33 year old West German citizen, Dieter Boxheimer of Frankfurt, was apprehended by officers of the Australian Customs Service at Melbourne's Tullamarine airport as he attempted to leave the country with sixty-two live reptiles and one amphibian in a suitcase. The species found in Boxheimer's possession were:-

Shingle-back Lizard	Trachydosaurus rugosus
Thick-tailed Gecko	Underwoodisaurus millii
Wood Gecko	Diplodactylus vittatus
Inland Bearded Dragon	Amphibolurus vitticeps
Gidgee Skink	Egernia stokesii
Cunningham's Skink	Egernia cunninghami
Blotched Blue-tongued Lizard	Tiliqua nigrolutea
Eastern Blue-tongued Lizard	Tiliqua scincoides
Western Blue-tongued Lizard	Tiliqua occipitalis
Spotted Grass Frog	Limnodynastes tasmaniensis



Shingle-back Lizard
Trachydosaurus rugosus

Boxheimer was remanded on bail and appeared before Melbourne County Court on 30 October 1985. He was charged with attempting to export on 22 September 1985 sixty-three specimens of native Australian fauna contrary to the Wildlife Protection (Regulation of Exports & Imports) Act 1982 (WPA), and also with illegally exporting reptiles on 28 October 1984. He pleaded guilty to both charges, was convicted and fined A$5000 (US$3587) on the first charge and placed on a good behaviour bond for the second charge. This was the third prosecution to be taken under the WPA which came into force in Australia on 1 May 1984.

Frank Antram, TRAFFIC (Australia)

Australian State Prosecutions

New South Wales

On 27 November 1985, Joseph Saliba of Plumpton, NSW, was fined A$1300 (US$933) and placed on a twelve-month good behaviour bond after pleading guilty in Hornsby Local Court to four counts of possessing protected fauna, one of taking and killing endangered fauna and one of cruelty to animals. NSW Police had alleged that Saliba and Mario Theuma of Horsely Park, NSW had conspired to trap and sell twenty-eight Major Mitchell's Cockatoos Cacatua leadbeateri between 1 May and 28 May 1985. Earlier, on 2 September 1985, Theuma was fined A$2000 and placed on a twelve-month good behaviour bond on one count of possessing protected fauna and one of cruelty to animals.

Tasmania

Two men, Edward Vincent Terry and Alec James Le Fevre, appeared in Launceston Magistrate's Court on 15 January 1986 charged with attempting to trap a Tasmanian Tiger or Thylacine Thylacinus cynocephalus without a permit. They were bailed to appear for plea on 10 February 1986. The Thylacine is listed in CITES Appendix I and is classified as 'extinct' in the IUCN Red Data Book. The last known specimen was taken from the wild in 1933 and died in Hobart Zoo in 1936. There have been numerous unsubstantiated claims of sightings of the species in recent years.

Western Australia

On 12 September 1985, Peter Krauss, a reptile dealer from Atherton, Queensland, was found by rangers at Fitzroy Crossing, Western Australia, in possession of a number of illegally-taken reptiles. He was prosecuted and fined A$250 (US$180) under Western Australian State law.

"Operation Overland" was the first successful major campaign of the new Department of Conservation and Land Management* in Western Australia, according to the Department's own publication Landscope (Vol. 1 No. 3, December 1985). After months of investigation, two Western Australians, John Franceschi and Stanley Osborne, were found in Victoria with eighty parrots of Western Australian origin, and were prosecuted under Victorian law (see Traffic Bulletin VII(3/4):61 for details). They were subsequently also prosecuted under WA law for exporting (to Victoria) fauna without a licence. The two pleaded guilty and were fined A$400 each. A third man, Siek Rabcynski, who was apprehended in Victoria with Franceschi and Osborne, was found guilty of illegal export of seventy-nine parrots and finches and illegal possession of parrots. He was fined a total of A$581.

Fines for offences under Section 16 or 16A of the Wildlife Conservation Act 1950 were increased recently to a maximum of A$10 000. The Wildlife Conservation Amendment Act 1985, which came into force at the end of November 1985, also extends the time in which proceedings for offences may be made, from within six months to within two years. The need for increased penalties under the Act had been highlighted by a case, in September 1984, in which two US citizens, George Jurcevich of Pennsylvania and Thomas Joseph Cullen III of New York, were caught cutting down a tree to obtain eggs from the nest of a Red-tailed Black Cockatoo Calyptorhynchus magnificus. The two men also had in their possession twenty-nine Galah Eolophus roseicapillus eggs, three Long-billed Corella Cacatua tenuirostris eggs and two Red-tailed Black Cockatoo eggs. They were fined the maximum penalty, at that time, of A$1200. The overseas value of the eggs was estimated at A$75 000!

Frank Antram, TRAFFIC (Australia)

* The Department of Conservation and Land Management was established in March 1985 under the Conservation & Land Management Act 1984. Previously the (now defunct) Department of Fisheries & Wildlife had been responsible for fauna investigations. Fisheries matters in WA are now handled by the Department of Fisheries.

Rhino Horn Smuggler Jailed

A Zimbabwean who smuggled two rhino horns, worth more than Z$49 000 (US$29 945), into the country from Mozambique was jailed on 7 March 1986 for four years.

Duwariti Aliphasi, 62, was arrested whilst trying to sell the horns to an official of the Zimbabwean Department of National Parks & Wildlife Management. The magistrate said that had it not been for his advanced age, Aliphasi would have been given a harsher sentence.

Source: The Herald (Zimbabwe), 8.3.86

Asian Rhino Horn Imports

South Korea and Taiwan have been important consumers of rhinoceros horn. They are not party to CITES but their annual Customs reports include a category for rhinoceros horn and we have previously published their reported imports (see Traffic Bulletin VI(1):3-4, VI(2):28). To update the previous information:

South Korea does not appear to have imported any rhino horn in 1984 or 1985; however, it is known that the Korean statistics understated the trade in the past.

Taiwan reports having imported 120 kg of horn, valued at NT$671 000 (US$16 870) in 1984, and 43 kg declared at NT$285 000 (US$7165) in the first nine months of 1985. Taiwan banned the import of rhino horn in August 1985 (see Traffic Bulletin VII(3/4):42).

The Hazards of Pet Turtles

The export of three to four million turtles a year from the USA, as well as sales of turtles raised and distributed in other countries, may be an important source of the infection salmonellosis worldwide, according to a report published in the Journal of the American Medical Association, 7.12.85.

Following the contraction of salmonellosis by an infant in Puerto Rico who had been in contact with a pet turtle, and the discovery that, in the USA, turtles marked "for export only" were being shipped from Louisiana to Puerto Rico in 1983, a study was carried out in two urban areas of the latter country to measure the extent of pet turtle-associated diseases. Twelve to seventeen per cent of salmonellosis cases reported in infants were attributed to pet turtles.

During the study, turtles were collected from eighteen pet shops throughout the island and were tested in lots for the presence of Salmonella. All turtles collected were Red-eared Turtles (Terrapins) Pseudemys scripta-elegans and all eighteen lots were infected by Salmonella serotypes. Sixteen of them, eighty-nine per cent, were found to be infected with Salmonella pomona. It is believed the animals were contaminated before being exported from the USA.

Red-eared Turtles have been associated with salmonellosis since 1962. Whilst other reptiles, including lizards and snakes have been implicated as sources of human salmonellosis, the Red-eared Turtle is a particularly efficient vehicle because it is easily raised, shipped and distributed worldwide.

Source: Tauxe, R.V., Rigau-Pérez, J.G., Wells, J.G. and Blake, P.A. (1985). Turtle Associated salmonellosis in Puerto Rico; hazards of the global turtle trade. Journal of the American Medical Association. 254(2):237-239.

Parrot Importer Convicted

A thirty-five year prison sentence and US$1 million fine face New York bird dealer Harvey Edelman, after being convicted in October 1985 of smuggling birds into the USA.

Edelman had been under investigation by the US Department of Agriculture (USDA) and was observed receiving shipments of smuggled birds in New York. In March 1985, he was arrested near the El Paso/Mexican border in possession of forty-four Mexican parrots that he had smuggled into the USA.

Among the birds in his possession were Yellow-headed Amazons Amazona ochrocephala, Red-crowned (Green-cheeked) Amazons Amazona viridigenalis, Red-lored Amazons Amazona autumnalis and conures Aratinga spp. Their total wholesale value was estimated to be about US$10 000. His offences involved not only evading endangered species legislation but also evading quarantine regulations.

Source: Bird Talk (USA), February 1986

Hawk Smugglers Sentenced ... to make film

Two men have been sentenced to make a documentary film on the importance of birds of prey, after being convicted for smuggling rare Australian bird eggs into the USA.

William Robinson and Jonathan Wood were arrested at Los Angeles International Airport on 12 September 1984 when a customs inspector found twenty-seven eggs of rare birds in their clothing. The eggs were forfeited, and two hawks which hatched from the eggs were given to the Los Angeles Zoo. The men, both from New York, were also placed on probation for five years.

Source: Daily Telegraph (Australia), 31.10.85

World Fish Catch Sets Record

According to preliminary figures from the United Nations Food & Agriculture Organisation, the world fish catch reached its highest ever in 1984, at more than 80 million tonnes (Mt).

Japan, with a catch of more than 11.8 Mt remained the biggest catcher, followed by the USSR at 10.5 Mt, China 5.2 Mt and the USA 4.7 Mt. Norway's catch apparently dropped by fourteen per cent to 2.4 Mt, behind India's 2.8 Mt and South Korea's 2.5 Mt.

Later figures published by the Japanese Ministry of Agriculture, Forestry & Fisheries indicate that Japan's 1984 catch rose by seven per cent over 1983 to a record 12.8 Mt. This is believed to be the largest annual catch ever recorded by a single country. The Ministry's figures show that Japan's total figure comprises: offshore 6.9 Mt; coastal 2.28 Mt; deepsea 2.26 Mt and marine farming 1.1 Mt. The largest single species landing was for pilchards at 4.18 Mt, an increase of twelve per cent.

Of all the major fish exporting nations (Canada, USA, Norway, Japan and Denmark), only Japan's overseas sales increased, rising to a value of $A1200 M (US$900 M). This was as a result of bigger sales of frozen and canned tuna to the UK, USA and Thailand.

Source: Australian Fisheries, 44(10) October 1985

Peregrine Smugglers Caught

Two American falcon breeders, Steve Baptiste and David Jamieson, have pleaded guilty, in the USA, to smuggling twenty-one rare North American Peregrine Falcons Falco peregrinus (CITES Appendix I) into Saudi Arabia, assisted by a British breeder and three Canadians.

"Operation Falcon", a US Government crackdown on the smuggling of protected birds of prey, begun in 1981, names Briton, Peter Whitehead, once a breeder of birds of prey, and members of a Canadian company - Birds of Prey International, of Ontario - as the accomplices.

The Americans made two deliveries to Saudi Arabia, in August and October 1982. For the first, Whitehead flew to Reno, Nevada, where he met up with Jamieson who had with him four hybrid falcons that he had bred in captivity. They drove to Niagara Falls, New York where they met two Canadians, John Slaytor of Birds of Prey International, and his girlfriend Margaret Hamilton. Jamieson returned to Nevada, whilst the others continued their trip across the border to Slaytor's house in Cambridge, Ontario, bringing with them the sedated birds. On 28 or 29 August, Slaytor and Whitehead smuggled the four falcons and another five into the UK. From here, Whitehead flew to Saudi Arabia with the birds, where he sold them for US$200 000. The buyers have not been named. On his return to the UK, Whitehead gave Slaytor $100 000 and the car they had used for the smuggling, and Jamieson was paid $70 000. Another employee of Birds of Prey International, Glen Luckman was paid $95 000. Whitehead kept $5000.

In the second transaction, Luckman and Baptiste drove to Canada with four hybrid falcons and one Gyrfalcon Falco rusticolus; here they picked up seven more birds and flew to Saudi Arabia where the birds fetched $160 000.

Baptiste and Jamieson have agreed to plead guilty and pay fines of $30 000 each, half to be suspended. Jamieson also admitted marking a wild-collected Peregrine as captive-bred. No action was taken against Whitehead.

In 1984, Luckman was convicted of smuggling falcons, and Slaytor was released on bail. On 4 November 1985, Slaytor was to have entered a plea but just days before this date, he disappeared.

Since "Operation Falcon" began, the US Department of Justice has convicted about fifty people for breaking the laws on exporting or trading in falcons.

Source: New Scientist (UK), 19/26.12.85

The Japanese Psittacine Trade (1981-1982)

by Emily Roet and Tom Milliken

A report on Japan's trade in psittacines, the results of an investigation by TRAFFIC (Japan), funded by TRAFFIC (USA), has just been published. The aim of the study was to assist the Japanese Government, the CITES Secretariat and others concerned with parrot conservation, to ensure that the international trade in these birds proceeds in accordance with CITES regulations. The present article summarises the methodology and results of the investigation, and includes, substantially, the full conclusions of the report. The report is published by TRAFFIC (USA) at US$12.50.

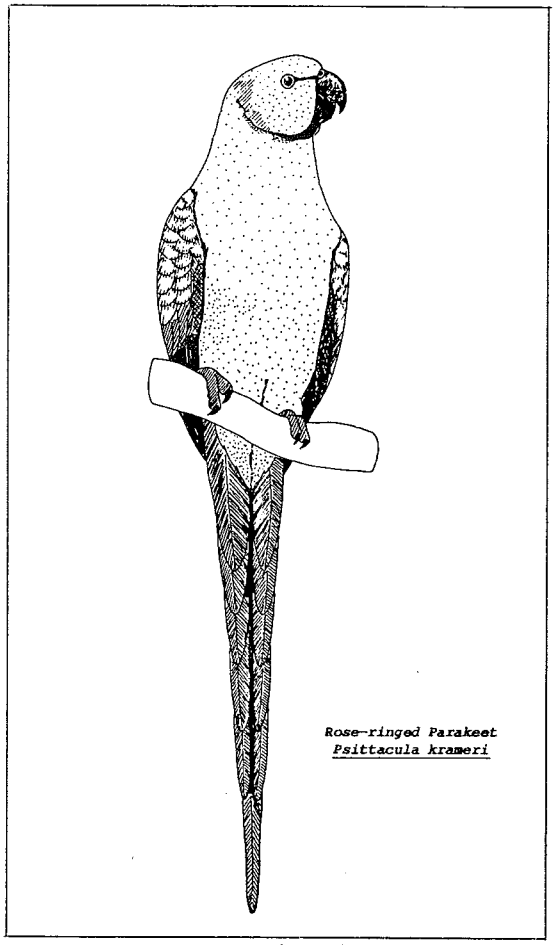
The present investigation was based on three sources of data. First, unpublished 1981 CITES annual report data were obtained from Japan's CITES Management Authority, the Ministry of International Trade and Industry (MITI). The MITI data included details of species, quantity and countries of export for all imports to Japan of CITES-listed species. These data were compiled by the Government from import and export documents collected by the Customs authorities. Secondly, data were obtained from the eight importers estimated by Japan's Environmental Agency to account for eighty-five per cent of all psittacines imported in 1981, through questionnaires, interviews and examination of company records. Thirdly, between June and October 1982 data were obtained through a market survey of fifty-six pet shops and department stores with pet departments, two wholesalers' warehouses and seven major importers' warehouses. In each instance, species and numbers were recorded and some information on turnover rates and mortality was obtained. The objective of the market survey was to provide a check to compare species and numbers of parrots found in the market place with those listed in the MITI data and the importers' data.

The data from each source regarding each species are given in Table 3, and the data by region of export are summarised in Tables 1 and 2.

In order to evaluate the effect of the trade on the survival of species in the wild, it was important to distinguish wild-caught parrots from captive-bred parrots in trade. Few of the data obtained made such a distinction. Therefore the authors used general guidelines to make the distinction, based on the source countries and species involved. In general, birds imported directly from their countries of origin were regarded as wild-caught. Where discrepancies between the stated origin and known distribution of a species were found, in most cases lovebirds Agapornis spp. and Psittacidae species from the Australia-New Zealand region, Taiwan, Europe and the USA, were considered to have been captive-bred. All other birds were regarded as wild-caught.

Nonetheless, there was a surprisingly high degree of correlation. Of the top twenty species identified in the MITI data, only one, the Green-rumped Parrotlet Forpus passerinus, was not reported in the market survey data; this discrepancy is not surprising since that species was probably misidentified anyway. In the importers' data, only two of the twenty most-mentioned species, the Ornate Lorikeet Trichoglossus ornatus and the Slaty-headed Parakeet Psittacula himalayana were absent from the market survey data. Two other Psittacula species, the Moustached Parakeet P. alexandri and the Blossom-headed Parakeet P. roseata, which had the first and fourth highest volumes, respectively, in the importers' data, appeared only to a small extent in the market survey data. This suggests that importers possibly overstated their trade in these species. According to some importers, India implemented a ban on bird exports throughout much of 1982; this could account for the discrepancies with the Psittacula species.

The authors estimated that 5860 (45%) of the birds imported, reported by MITI and 49 875 (45%) of those reported in the importers' data were captive-bred. Trade involving the two non-CITES psittacines, Budgerigar Melopsittacus undulatus and Cockatiel Nymphicus hollandicus, and the Appendix III Ring-necked Parakeet Psittacula krameri, although noted where reported, was excluded from the data summarised above and discussed in the report. ▷



Rose-ringed Parakeet
Psittacula krameri

Illustration by Sarah Anne Hughes

The full published report includes a country by country synopsis detailing and discussing the sources of the parrots found in trade and also includes detailed tabulations of the data that were collected.

Conclusions

Although importers and pet dealers contacted during the survey indicated that the importation of psittacines had declined since the boom years of the mid-1970s, Japan clearly remains one of the world's major consumers of parrots. While the present study presents the most comprehensive look at Japan's parrot trade to date, inherent deficiencies in the data make it difficult to produce precise figures for the 1981 trade.

The MITI import data accounted for 13 040 CITES-listed parrots, representing sixty-five species, but this is only a partial reflection of the trade. For, although Japan ratified CITES on 4 November 1980, most parrots were not included in the CITES Appendices until 6 June 1981 and were therefore largely excluded from the data. In addition, it appears that Customs personnel and MITI's compilers of the Japanese CITES annual report lacked the necessary expertise to identify species accurately, produce statistics, and otherwise assess the 1981 trade.

The importers' data indicated a total import of 110 343 CITES-listed parrots and identified 107 species. While this gives a far broader view of the trade, these data are also subject to certain limitations. Approximately eighty-five per cent of the data relied upon the ability of the importers to remember accurately the composition of their 1981 trade. As a result, the data lack precision and some margin of error is inevitable.

Based upon the assumption that species reported in the greatest numbers in the MITI and importers' data should be found with the greatest frequency in the marketplace, the market survey data give further insight into the trade. However, the survey also had limitations. First, it was conducted in 1982 whereas the other data were concerned with 1981 imports. Secondly, the survey was not extensive enough to serve as a comprehensive check on the MITI and importers' data. Thirdly, market survey data are, in general, influenced by a variety of factors including mortality, seasonal availability, turnover rates, and geographic considerations within the Japanese market.

Despite the various limitations of the data, a fairly strong picture of the Japanese psittacine trade does emerge. Altogether, this study has identified at least 126 species in trade - well over one-third of all extant parrot species. If we accept that collectively the trade of the importers interviewed for this study accounted for eighty-five per cent of Japan's parrot trade (as an official at the Environment Agency indicated), the 1981 Japanese parrot trade clearly involved over 100 000 birds, excluding Appendix III and non-CITES species. These figures, if correct, indicate that Japan's psittacine trade is second in size only to that of the USA.

Although the numbers and species represented in the MITI and importers' data differ substantially, similar notable patterns are found. First, there is a strong regional bias towards Asia reflected in both the species-composition and the countries of export. The greatest diversity of species imported came from

Table 1

Species, by major geographical distributions, reported as imports (from MITI and importers' data, 1981), and identified in trade (from market survey data, 1982)

Distribution	MITI			Importers' data			Market survey		
	No. Species	No. Birds	% of Total	No. Species	No. Birds	% of Total	No. Species	No. Birds	% of Total
Australasian	34	3213	25	62	36053	33	40	607	45
Afro-asian	9	6805	52	16	63333	57	8	314	24
Neotropical	22	3022	23	29	10957	10	27	415	31
TOTAL	65	13040		107	110343		75	1336	

Note: The present report uses the nomenclature of species adopted by Forshaw (1977) with some slight modifications. The 332 species are divided into three geographical distributions: Australasian (Forshaw's Pacific), 150 species; Afro-asian, 44 species; and Neotropical (Forshaw's South American), 138 species.

Australasia, and Asian countries supplied the greatest number of parrots. This would suggest that nearness to producing countries is an important factor governing the trade; Japan's proximity to South-east Asia and Japanese knowledge of the markets there provide a favourable background for the pursuit of the psittacine trade. In addition, the prohibition against transhipping live birds through the USA limits the number of Neotropical species imported into Japan.

The predominance of Australasian species is in sharp contrast to the US trade, which has been heavily oriented towards the Neotropical species of the closer Latin American region (Roet et al., 1981).

Secondly, the Japanese trade relies to a large extent upon captive-bred birds, particularly species from Australia and New Zealand, and lovebirds. In the MITI and importers' data, a little less than half of the total trade is considered to represent captive-bred birds, and in both sets of data Taiwan is the leading exporter, followed by the Netherlands. Both countries are known centres for captive breeding; Taiwan is a major producer of lovebirds and the Netherlands breeds a wide variety of Australasian species. Such trade generally represents exploitation compatible with the sustainable utilization principles established in the World Conservation Strategy (Anon., 1980) and has a minimal effect upon wild populations of parrots.

However, at the same time it should not be overlooked that the importers' data also indicate that the Japanese trade relies heavily upon the importation of species endemic to Indonesia, particularly a wide range of Loriidae species, including one, the Blue-eared Lory Eos semilarvata, never before identified in international trade. As a result, field research may be warranted in order to assess the impact of trade on these species in their country of origin.

Thirdly, not all the trade in wild-caught birds appears to be legal and South-east Asia emerges as a problem region of great concern. Trade with Singapore, in particular, needs close attention. The fact that Singapore is not a Party to CITES, coupled with its reputation as a trade conduit for illegally acquired wildlife, makes much of the trade stemming from that country suspect. Evidence presented in our full report clearly identifies Singapore as an exporter of non-indigenous species that are protected from commercial exploitation in Australia and Indonesia and other countries of origin.

At the same time, similar problems are noted for much of the trade originating from Indonesia. Although Japan is a Party to CITES, the fact that Japanese dealers are able to acquire rare and protected species either directly from Indonesia or through neighbouring Singapore or Thailand, gives rise to concern that national protection and exportation laws are ignored and CITES controls easily circumvented in Indonesia. Many psittacine species are endemic to Indonesia and therefore rely entirely upon effective Indonesian protection efforts for their future survival in the wild.

Other trade reported from Thailand, Malaysia, and Hong Kong is also subject to question. In addition, all trade in Neotropical species needs to be closely monitored since it was established that none of it is likely to represent captive-bred birds and many discrepancies were noted. In particular, trade originating from Brazil, Bolivia, Paraguay, and possibly Peru, is in need of strict legal verification.

A fourth and interesting point to note is that almost all evidence of suspect trade comes from the data provided by the importers themselves or from the market survey, but not from the data provided by the Government. This could result from the fact that all questionable trade documented in this report took place before most psittacine species were subject to CITES controls in June 1981. However, it is far more likely that Customs checks are inadequate to identify all trade accurately, and that dealers may deliberately take advantage of this lack of expertise to acquire rare and protected species. Japan does not require psittacines to undergo quarantine before release to the importers, so birds, with few exceptions, are hastily cleared through Customs. The instigation of a quarantine period for all live-bird imports could significantly strengthen the ability of Customs to identify species accurately and to check import documents for trade violations.

Given the magnitude of the Japanese market, the burden of responsibility placed upon the Customs authorities to control the parrot trade cannot be overestimated. By diligently enforcing CITES regulations and controlling imports, Japan can make a major contribution to worldwide psittacine conservation efforts.

Table 2
Regions of export of parrots imported into Japan in 1981
(from MITI and importers' data)

Region	MITI data			Importers' data		
	No. Countries	No. Birds	% of Total	No. Countries	No. Birds	% of Total
Asian	7	5969	46	8	72758	66
S. American	3	2768	21	7	11393	10
European	2	2449	19	2	20378	19
African	4	1834	14	4	5814	5
N. American	1	20	1	-	-	-
TOTAL	17	13040		21	110343	

Green-rumped Parrotlet Forpus passerinus © WWF/Dr E. Jungius

References

Anon., (1980):
World Conservation Strategy: Living resource conservation for sustainable development. IUCN/UNEP/WWF, Gland, Switzerland.

Forshaw, J.M. (1977):
Parrots of the world. 2nd edition.
T.F.H. Publications, New Jersey, 584pp.

Roet, E.C., Mack, David and Duplaix, Nicole (1981):
Psittacines imported by the United States (October 1979-June 1980). World Wildlife Fund-US/TRAFFIC (USA) Special Report No. 7. Washington, D.C., 70pp.

Emily Roet is a former member of staff at TRAFFIC (USA). Tom Milliken is the Director of TRAFFIC (Japan).

Table 3 - Species Data

Species	Distribution	Importers' Data	MITI Data	Market Survey Data	
				Warehouse	Pet Store
		No.+Co.of Ex +(No.of Importers)	No.+Co.of Ex (No.of Shipments	No.(No.of Ware-houses)	No.(No. of Pet Stores)
Black Lory *Chalcopsitta atra*	ID	10 SG!(1)	-	-	-
Duyvenbode's Lory *C. duivenbodei*	ID,PG	125 ID(1)	-	-	-
Yellow-streaked Lory *C. sintillata*	ID,PG	185 ID(2) 50 SG!(2)	-	-	1(1)
Eos spp.		500* ID(1)		2(1)	-
Black-winged Lory *E. cyanogenia*	ID	300 ID(1) po500* ID(1)	-	-	1(1)
Violet-necked Lory *E. squamata*	ID	405 ID(4) po500* ID(1)	40 ID(1)	-	-
Blue-streaked Lory *E. reticulata*	ID	130 ID(2) po500* ID(1)	30 ID(1)	1(1)	-
Red and Blue Lory *E. histrio*	ID	500 ID(1) 10 TH!(1)	-	-	-
Red Lory *E. bornea*	ID	2900 ID(7) 800 SG!(1)	335 ID(5)	58(4)	21(8)
Blue-eared Lory *E. semilarvata*	ID	75 ID+SG!(1) 100 SG!(1)	-	-	-
Dusky Lory *Pseudeos fuscata*	ID,PG	30 ID(1) 30 ID+SG!(1)	-	-	-
Trichoglossus spp.		600* ID+SG!	-	-	-
Ornate Lory *T. ornatus*	ID	1350 ID+SG!(2)	-	-	-
Rainbow Lory *T. haematodus*	AU,ID,NC PG,SB,VU	1485 ID(5) 1500 ID+SG!(1) 300 ID+SG!+TH!(1)	260 ID(6)	142(7)	27(12)
Yellow and Green Lorikeet *T. flavoviridis*	ID	15 ID(1)			
Perfect Lorikeet *Trichoglossus euteles*	ID	53 ID(2)	-	-	6(1)
Varied Lorikeet *T. versicolor*	AU	po600* ID+SG!(1)	-	-	-
Iris Lorikeet *T. iris*	ID	po600* ID+SG!(1)	-	-	-
Goldie's Lorikeet *T. goldiei*	ID,PG	po600* ID+SG!(1) 20 SG!(1)	20 ID(1)	-	2(2)
Lorius spp.		po60* ID(1) pol40* ID+SG!(1)	-	-	-
Black-capped Lory *L. lory*	ID,PG	po60* ID(1) 10 SG!(1)	-	-	-
Stresemann's Lory *L. amabilis*	PG(one spec. only)	pol40* ID+SG!(1)	-	-	-
Yellow-bibbed Lory *L. chlorocercus*	SB	po60* ID!(1)	-	-	-
Purple-naped Lory *L. domicellus*	ID	po60* ID(1)	-	-	-
Blue-thighed Lory** *L. tibialis*	?(one spec. only)	pol40* ID+SG!(1)	-	-	-
Chattering Lory *L. garrulus*	ID	908 ID(6) 168 SG!(1) 200 ID+SG!(1)	157 ID(5)	57(4)	4(4)
Fairy Lorikeet *Charmosyna pulchella*	ID,PG	40 ID(1)	-	-	-
Musschenbroek's Lorikeet *Neopsittacus musschenbroekii*	ID,PG	-	-	3(1)	2(1)
Palm Cockatoo *Probosciger aterrimus*	AU,ID,PG	-	-	-	1(1) from TH!
Galah Cockatoo *Eolophus roseicapillus*	AU	-	-	-	3(2)
Cacatua spp.		160* ID(1)	-	-	-
Major Mitchell's Cockatoo *C. leadbeateri*	AU	4 SG!(1)	-	-	1(1) from TH!
Lesser Sulphur-crested Cockatoo *C. sulphurea*	ID	182 ID(3) 28 SG!(1) 65 HK!(1) 800 ID+SG!(2) pol60* ID(1)	20 SG!(1) 60 ID(3)	5(2)	14(8)

** now considered aberrant *L. domicellus*

Table 3 - Species Data (ctd)

Species	Distribution	Importers' Data	MITI Data	Market Survey Data	
				Warehouse	Pet Store
		No.+Co. of Ex +(No. of Importers)	No.+Co. of Ex (No. of Shipments	No.(No.of Ware-houses)	No.(No. of Pet Stores)
Golden-shouldered Parrot P. chrysopterygius	AU	18 NL!(3)	12 NL!(2)	-	-
Red-fronted Parakeet Cyanoramphus novaezelandiae	NC,NZ	110 NL!(2)	7 NL!(1)	1(1)	2(1)
Neophema spp.		500* NL!(1)	4 TW!(1)	-	-
Bourke's Parrot Neophema bourkii	AU	622 NL!(6) po500* NL!(1)	176 NL!(6)	-	6(4)
Blue-winged Parrot N. chrysostoma	AU	po500* NL!(1)	-	-	-
Elegant Parrot N. elegans	AU	214 NL!(3) po500* NL!(1)	-	3(1)	1(1)
Turquoise Parrot N. pulchella	AU	911 NL!(5)	20 BE!(1) 246 NL!(10)	11(3)	18(8)
Scarlet-chested Parrot N. splendida	AU	580 NL!(4)	101 NL!(6)	-	-
Swift Parrot Lathamus discolor	AU	7 NL!(1)	5 NL!(1)	-	-
Grey Parrot Psittacus erithacus	AO,BI,BJ, CG,CI,CM, GA,GH,GN, GQ,GW,KE, LR,ML,NG, RW,SL,ST, TG,TZ,UG,ZR	1574 GH(4) 275 LR(1) 125 TZ(1) 40 TG!(1) 40 eu!(1)	300 GH(3) 50 LR(1) 84 TG!(1)	186(5)	16(7)
Agapornis spp.		16000 TW!	110 TW!(3)	-	-
Grey-headed Lovebird A. cana	MG	500 PE!(1) 6 NL!(1)	-	-	-
Black-winged Lovebird A. taranta	ET	-	3 NL!(1)	-	-
Peach-faced Lovebird A. roseicollis	AO,BW,NA, ZA	3703 TW!(3) 350 NL!(2) po16000* TW!(2)	581 TW!(27) 36 NL!(3) 20 US!(1) 6 BE!(1)		
Fischer's Lovebird A. fischeri	BI,RW, TZ	10000 TW!(1) 2500 TZ(2) po16000* TW!(1)	2900 TW!(71) 500 TZ(1)	-	-
Masked Lovebird A. personata	KE,TZ	1300 TZ(2) po16000* TW!(1)	-	-	-
Nyasa Lovebird A. lilianae	MW,MZ,TZ, ZM,ZW	20 NL!(1)	900 TZ(2)	-	-

Species	Distribution	Importers' Data	MITI Data	Market Survey Data	
				Warehouse	Pet Store
		No.+Co.of Ex +(No.of Importers)	No.+Co.of Ex (No.of Shipments	No.(No.of Ware-houses)	No.(No. of Pet Stores)
Black-cheeked Lovebird A. nigrigenis	NA,ZM,ZW	10 NL!(1)	-	-	-
Loriculus spp.		240* SG(1)	200 IN(1)	-	11(1)
Vernal Hanging Parrot L. vernalis	BD,BT,BU, CN,IN,KH, LA,NP,TH, VN	80 ID!(1) 67 TH(2)	-	-	5(2)
Blue-crowned Hanging Parrot L. galgulus	BN,ID,MY, SG,TH	3 TH(1) 400 MY+SG+TH (1)	40 TH(1)	-	2(1)
Alexandrine Parrot Psittacula eupatria	AF,BD,BT, BU,IN,KH, LA,LK,NP, PK,TH,VN	6400 IN(5)	-	2(1)	2(2)
Slaty-headed Parakeet P. himalayana	AF,BD,BT, BU,CN,IN, KH,LA,NP, PK,TH,VN	1000 IN(1)	-	-	-
Plum-headed Parakeet P. cyanocephala	IN,NP,LK, PK	1000 IN(1)	150 IN(1)	70(1)	2(2)
Blossom-headed Parakeet P. roseata	BD,BT,BU, CN,IN,KH, LA,MY,TH, VN	2540 IN(4) 90 TH(1)	-	-	1(1)
Malabar Parakeet P. columboides	IN	200 IN(1)	-	-	-
Derbyan Parakeet P. derbiana	CN,IN	1400 CN(1) 260 HK!(2)	200 CN(1)	2(1)	12(5)
Moustached Parakeet P. alexandri	BD,BT,BU, CN,ID,IN, KH,LA,NP, TH,VN	3300 TH(3)	5 CN(1) 140 IN(1) 580 SG#(1)	-	3(2)
Hyacinth Macaw Anodorhynchus hyacinthinus	BO,BR,PY	8 BO(1) 12 BO+PY(1)	5 BO(1)	-	2(2)
Blue and Yellow Macaw Ara ararauna	BO,BR,CO, EC,GF,GY, PA,PE,SR, VE	100 BO(2) 45 BO+PY!(1) 34 PY!(1)	30 BO(2)	14(3)	9(6)
Military Macaw A. militaris	AR,BO,CO, EC,MX,PE, VE	2 PY!(1)	-	-	2(1)

Table 3 - Species Data (ctd)

Species	Distribution	Importers' Data	MITI Data	Market Survey Data Warehouse	Market Survey Data Pet Store
		No.+Co.of Ex +(No.of Importers)	No.+Co.of Ex (No.of Shipments	No.(No.of Ware-houses)	No.(No. of Pet Stores)
Sulphur-crested Cockatoo *C. galerita*	AU,ID,PG	46G ID(2) 450G ID+SG!(2) 13M ID(1) 13M SG!(1) po160*M ID(1)	-	21(1)from HK!	2(1)
Moluccan Cockatoo *C. moluccensis*	ID	20 HK!(1) 46 ID(2) 200 ID+SG!(2) po160* ID(1)	10 ID(1)	6(2)	5(5)
White Cockatoo *C. alba*	ID	10 ID(1) 300 ID+SG!(2) po160* ID(1)	15 ID(1)	8(3)	3(3)
Goffin's Cockatoo *C. goffini*	ID	24 ID(1) 300 ID+SG!(1)	22 ID(1)	2(2)	2(2)
Orange-breasted Fig Parrot *Opopsitta gulielmiterti*	ID,PG	30 ID(1)	-	-	-
Desmarest's Fig Parrot *Psittaculirostris desmarestii*	ID,PG	30 ID(1)	-	1(1)	-
Edwards' Fig Parrot *Psittaculirostris edwardsii*	ID,PG	-	-	1(1)	-
Great-billed Parrot *Tanygnathus megalorynchos*	ID,PH	60 SG!(1)	-	-	-
Müller's Parrot *T. sumatranus*	ID,PH	-	-	-	1(1)
Eclectus Parrot *Eclectus roratus*	AU,ID,PG SB	60 HK!+SG!(1) 76 SG!(3)	-	-	-
Australian King Parrot *Alisterus scapularis*	AU	6 NL!(1)	3 NL!(2)	-	-
Green-winged King Parrot *A. chloropterus*	ID,PG	20 ID(1)	10 ID(1)	-	-
Ambon King Parrot *A. amboinensis*	ID	-	10 ID(1)	-	-
Red-winged Parrot *Aprosmictus erythropterus*	AU,ID,PG	125 ID(1) 40 TH!(1) 130 NL!*(2)	17 NL!(4)	6(2)	1(1)

Species	Distribution	Importers' Data	MITI Data	Market Survey Data Warehouse	Market Survey Data Pet Store
		No.+Co.of Ex +(No.of Importers)	No.+Co.of Ex (No.of Shipments	No.(No.of Ware-houses)	No.(No. of Pet Stores)
Superb Parrot *Polytelis swainsonii*	AU	272 NL!(4)	4 BE!(1) 29 NL!(8)	12(1)	1(1)
Regent Parrot *P. anthopeplus*	AU	110 NL!(3)	2 BE!(1) 11 NL!(3)	2(1)	-
Princess Parrot *P. alexandrae*	AU	315 NL!(5)	42 NL!(7)	8(3)	5(2)
Red-capped Parrot *Purpureicephalus spurius*	AU	244 NL!(3)	9 NL!(3)	2(1)	2(1)
Mallee Ringneck Parrot *Barnardius barnardi*	AU	126 NL!(3)	-	1(1)	-
Port Lincoln Parrot *Barnardius zonarius*	AU	122 NL!(3)	-	3(1)	-
Platycercus spp.		35* NL!(1) 18* NL!(1)	-	-	-
Green Rosella *P. caledonicus*	AU	po 35* NL(1)	-	-	2(1)
Crimson Rosella *P. elegans*	AU	344 NL!(5)	14 BE!(1) 28 NL!(5)	15(3)	4(2)
Yellow Rosella *P. flaveolus*	AU	104 NL!(2) po35* NL!(1)	3 NL!(1)	2(2)	-
Adelaide Rosella *P. adelaidae*	AU	82 NL!(4)	8 NL!(4)	6(1)	1(1)
Eastern Rosella *P. eximius*	AU	5610 NL!(8)	443 NL!(21)	6(3)	20(11)
Pale-headed Rosella *P. adscitus*	AU	850 NL!(6)	20 BE!(1) 62 NL!(9)	8(2)	3(1)
Northern Rosella *P. venustus*	AU	po35* NL!(1)	8 NL!(2)	-	-
Western Rosella *P. icterotis*	AU	601 NL!(6)	83 NL!(9)	-	4(2)
Red-rumped Parrot *Psephotus haematonotus*	AU	7887 NL!(8)	50 TW!(1) 20 BE!(1) 750 NL!(29)	29(3)	19(8)
Mulga Parrot *P. varius*	AU	112 NL!(4)	35 NL!(5)	-	2(1)
Blue-bonnet Parrot *P. haematogaster*	AU	22 NL!(2)	12 NL!(2)	-	-

Table 3 - Species Data (ctd)

Species	Distribution	Importers' Data	MITI Data	Market Survey Data	
				Warehouse	Pet Store
		No.+Co.of Ex +(No.of Importers)	No.+Co.of Ex (No.of Shipments	No.(No.of Ware-houses)	No.(No. of Pet Stores)
Scarlet Macaw *A. macao*	BO,BR,BZ, CO,CR,EC, GF,GT,GY, HN,MX,NI, PA,PE,SR, ?TT,VE	-	-	3(2)	5(4)
Green-winged Macaw *Ara chloroptera*	AR,BO,BR, CO,EC,GF, GY,PA,PE, PY,SR,VE	50 BO(1) 90 PY(2)	10 BO(1)	9(2)	5(2)
Red-fronted Macaw *A. rubrogenys*	BO	20 BO(1)	5 BO(1)	1(1)	1(1)
Chestnut-fronted Macaw *A. severa*	BO,BR,CO, EC,GF,GY, PA,PE,SR, VE	-	-	1(1)	-
Aratinga spp.		-	-	7(1)	-
Blue-crowned Conure *A. acuticaudata*	AR,BO,BR, CO,PY,UY, VE	30 AR(1) 200 PY(1)	65 AR(2) 100 BO(1)	-	3(3)
Red-fronted Conure *A. wagleri*	CO,EC,PE, VE	200 PE(1)	8 PE(1)	-	-
Mitred Conure *A. mitrata*	AR,BO,PE	-	-	1(1)	2(2)
Red-masked Conure *A. erythrogenys*	EC,PE	-	-	53(2)	2(2)
White-eyed Conure *A. leucophthalmus*	AR,BO,BR, CO,EC,GF, GY,PE,PY, SR,?TT,UY, VE	-	100 BO(1)	-	-
Jandaya Conure *A. jandaya*	BR	-	-	-	2(1)
Dusky-headed Conure *A. weddellii*	BO,BR,CO, EC,PE	200 PY!(1)	250 BO(1)	1(1)	3(1)
Orange-fronted Conure *A. canicularis*	CR,GT,HN MX,NI,SV	100 sm?(1)	-	-	-
Peach-fronted Conure *A. aurea*	AR,BO,BR, PE,PY,SR	100 AR(1)	25 NL!(1)	-	-
Nanday Conure *Nandayus nenday*	AR,BO,BR, PY	45 AR(1) 250 PE!(1) 200 sm(1)	240 AR(5)	-	3(2)

Species	Distribution	Importers' Data	MITI Data	Market Survey Data	
				Warehouse	Pet Store
		No.+Co.of Ex +(No.of Importers)	No.+Co.of Ex (No.of Shipments	No.(No.of Ware-houses)	No.(No. of Pet Stores)
Patagonian Conure *Cyanoliseus patagonus*	AR,CL,UY	25 AR(1) 50 PE!(1) 20 BR@(1)	75 AR(3)	-	-
Maroon-bellied Conure *Pyrrhura frontalis*	AR,BR,PY, UY	150 PY(1) 50 BR@(1)	-	-	-
Red-eared Conure *P. hoematotis*	VE	200 PE!(1)	-	-	-
Slender-billed Parrot *Enicognathus leptorhynchus*	CL	-	-	-	2(1)
Monk Parakeet *Myiopsitta monachus*	AR,BO,BR, PY,UY	1000 AR(1) 2000 UY(1)	275 AR(2)	6(1)	15(6)
Mountain Parakeet *Bolborhynchus aurifrons*	AR,BO,CL, PE	140 PE(1)	140 PE(2)	-	-
Andean Parakeet *B. orbygnesius*	BO,PE	-	50 PE(1)	-	-
Green-rumped Parrotlet *Forpus passerinus*	BR,CO,GF, GY,SR,TT, VE	600 PE!(3)	400 PE!(2)	-	-
Sclater's Parrot *F. sclateri*	BO,BR,CO, EC,GF,GY, PE,VE	100 PE(1)	-	-	-
Yellow-faced Parrotlet *F. xanthops*	PE	700 PE(2)	55 PE(1)	-	-
Pacific Parrotlet *F. coelestis*	EC,PE	600 PE(2)	150 PE(2)	-	2(2)
Canary-winged Parakeet *Brotogeris versicolorus*	AR,BO,BR, CO,?EC,GF, PE,PY	50 PE(1) 28 PE+AR(1)	150 BO(1)	-	5(4)
Grey-cheeked Parakeet *B. pyrrhopterus*	EC, PE	1100 PE (2)	180 PE(1)	17(1)	5(1)
Golden-winged Parakeet *B. chrysopterus*	BR,GF,GY, SR,VE	-	-	-	1(1)
Blue-headed Parrot *Pionus menstruus*	BO,BR,CO, CR,EC,GF, GY,PA,PE, SR,TT,VE	-	30 BO(1)	-	-

Table 3 - Species Data (ctd)

Species	Distribution	Importers' Data	MITI Data	Market Survey Data	
				Warehouse	Pet Store
		No.+Co.of Ex +(No.of Importers)	No.+Co.of Ex (No.of Shipments	No.(No.of Ware-houses)	No.(No. of Pet Stores)
Scaly-headed Parrot *Pionus maximiliani*	AR,BO,BR, PY	200 PY (2)	-	-	-
White-fronted Amazon *Amazona albifrons*	BZ,CR,GT, HN,MX,NI, SV	50 MX (1)	-	3(1)	-
Green-cheeked Amazon *A. viridigenalis*	MX	20 MX(1) 12 HK!(1)	-	2(1)	-
Lilac-crowned Amazon *A. finschi*	MX	6 HK!(1)	-	5(1)	-
Red-lored Amazon *A. autumnalis*	BR,BZ,CO, CR,EC,GT, HN,MX,NI, PA,VE	24 MX(1)	-	1(1)	-
Festive Amazon *A. festiva*	BR,CO,?EC, ?GY,PE,VE	-	-	5(1)	-
Blue-fronted Amazon *A. aestiva*	AR,BO,BR, PY	300 AR(1) 300 AR+BO+PY(1) 100 BR@(1) 700 BO(2) 650 PY(2) 1 HK!(1)	450 BO(5)	156(5)	35(27)
Yellow-crowned Amazon *A. ochrocephala*	BO,BR,BZ, CO,CR,EC, GF,GT,GY, HN,MX,NI, PA,PE,SR, SV,?TT,VE	50 MX(1) 45 HK!(2)	20 HK!(1) 209 NL!(4)	3(2)	21(16)
Mealy Amazon *A. farinosa*	BO,BR,BZ, CO,CR,EC, GF,GT,GY, HN,MX,NI, PA,PE,SR, VE	-	-	-	2(2)
Rose-ringed Parakeet *Psittacula krameri*	AF,BD,BJ, BT,BU,CM, CF,CI,CN, CV,DJ,ET, GM,GN,GH, GW,HV,IN, KE,LK,ML, MR,NE,NG, NP,PK,SD, SN,TD,TG, UG,ZR	6670 IN(5) 10 NL!(1)	1998 IN(13)		
Cockatiel *Nymphicus hollandicus*	AU	23025 TW!(6) 1550 NL!(3)	345 TW!(5) 100 NL!(2)		
Budgerigar *Melopsittacus undulatus*	AU	100000 CN!(1) 2000 HK!(1) 13000 HK!°(2) 10000 HK!+TW!(1) 40000 HK!+CN!(1)			

COUNTRY CODES AND KEY

AF	Afghanistan	GN	Guinea	PE	Peru
AO	Angola	GQ	Equatorial Guinea	PG	Papua New Guinea
AR	Argentina	GT	Guatemala	PH	Philippines
AU	Australia	GW	Guinea-Bissau	PK	Pakistan
BD	Bangladesh	GY	Guyana	PY	Paraguay
BE	Belgium	HN	Honduras	RW	Rwanda
BI	Burundi	HK	Hong Kong	SB	Solomon Islands
BJ	Benin	HV	Burkina Faso	SD	Sudan
BN	Brunei	ID	Indonesia	SG	Singapore
BO	Bolivia	IN	India	SL	Sierra Leone
BR	Brazil	KE	Kenya	SN	Senegal
BT	Bhutan	KH	Kampuchea	sm	South America
BU	Burma	LA	Laos	SR	Surinam
BW	Botswana	LK	Sri Lanka	ST	Sao Tomé and Principe
BZ	Belize	LR	Liberia	SV	El Salvador
CI	Ivory Coast	MG	Madagascar	TD	Chad
CF	Central African Republic	ML	Mali	TG	Togo
CG	Congo	MR	Mauritania	TH	Thailand
CL	Chile	MW	Malawi	TT	Trinidad and Tobago
CM	Cameroon	MX	Mexico	TW	Taiwan
CN	China	MY	Malaysia	TZ	Tanzania
CO	Colombia	MZ	Mozambique	UG	Uganda
CR	Costa Rica	NA	Namibia	US	United States
CV	Cape Verde	NC	New Caledonia	UY	Uruguay
DJ	Djibouti	NE	Niger	VE	Venezuela
EC	Ecuador	NG	Nigeria	VN	Viet Nam
ET	Ethiopia	NL	Netherlands	VU	Vanuatu
eu	Europe	NP	Nepal	ZA	South Africa
GA	Gabon	NI	Nicaragua	ZM	Zambia
GF	French Guiana	NZ	New Zealand	ZR	Zaire
GH	Ghana	PA	Panama	ZW	Zimbabwe
GM	Gambia				

po* = part of specified quantity represent this species
! = species does not occur in that country
AU = underlining of country code indicates that species protected in that country or banned from commercial export (at least during 1981)

G = Greater
M = Medium
# = Re-exporters from Burma
@ = Re-exporters from Bolivia
° = Re-exports from China

Publications Available

Latin American Wildlife Trade Laws

Leyes del Comercio de Vida Silvestre en América Latina

by Kathryn S. Fuller and Byron Swift
October 1985. Price: US$22.50

An updated, loose-leaf, edition of this book is now available and, as before, has English and Spanish summaries for each Latin American country. This edition includes more information about plant conservation laws and the international and regional treaties to which the Latin American countries are party. Available from TRAFFIC (USA) (see back cover).

African Elephants, CITES and the Ivory Trade
by R.B. Martin, J.R. Caldwell and J.G. Barzdo

1986. Price: US$25.00

A new publication by the CITES Secretariat, African Elephants, CITES and the Ivory Trade, consists of two reports prepared by consultants to the Secretariat.

The first, "Establishment of African Ivory Export Quotas and Associated Control Procedures", by Rowan B. Martin is the most recent evaluation of the status of elephant populations throughout Africa. During the course of the consultancy Martin, who is an elephant researcher in Zimbabwe, visited another fourteen African countries with significant elephant populations, and held discussions with the governmental wildlife authorities in each country, to devise an acceptable system of setting realistic ivory quotas.

The report consists essentially of three chapters, the first of which outlines the current population status of the African Elephant. Estimates of elephant population numbers were assembled from several sources. If available, the results of recent surveys were used, and official estimates from wildlife authorities were used if based on recent information. Where no new data were available, the population estimates from the IUCN/SSC meeting held in Hwange, 1981, were used. Population estimates for ten countries are given in the report's appendices.

The second, and largest, section of the report is a detailed discussion on the methodology of estimating ivory production and setting export quotas. The key factors involved in setting quotas are explained and examples of the type of forms that could be used to calculate the amount of ivory available for export are given. Examples are provided of how the methodology works using examples from several countries. Finally an export quota for Africa as a whole is suggested.

The third part of the report deals with international administrative aspects of the quota system and the ivory trade.

The second part of the publication, "The World Trade in Raw Ivory, 1983 and 1984" is by J.R. Caldwell and J.G. Barzdo of the Wildlife Trade Monitoring Unit of IUCN's Conservation Monitoring Centre. It provides an in-depth analysis of the international ivory trade and the changes that took place from 1983 to 1984. During compilation of this report details of trade in raw ivory were received from the Management Authorities of many African countries, as well as from entrepot and consumer countries. Information was also obtained from Customs statistics, annual reports to CITES, and from ivory traders.

The report suggests that the flow of ivory out of Africa was declining after a massive amount of poaching around 1981; this was not reflected in the amount reaching the end markets, because much had been held in store in Europe and elsewhere and was only released on to the market in late 1983. The combined effect of Sudan's ban on the export of raw ivory, and Belgium's accession to CITES had forced illegal dealers to change their trade routes so that ivory began to filter through the Middle East towards Singapore before going on to Japan. The report also shows that the effect of these controls was to reduce Hong Kong's ability to import ivory legally while not affecting Japan's trade to the same degree. This increased Hong Kong's reliance upon Japan as a source of ivory.

The two reports were issued in draft form, to a limited audience in April 1985 and, at the fifth meeting of the Conference of the Parties to CITES, it was acknowledged that their contents provided the necessary basis for the establishment of the procedures required for the full implementation of Resolution Conf. 5.12 on "Trade in Ivory from African Elephants".

The publication, in English, French or Spanish, is available from the CITES Secretariat. Financial support for the project and translation services were generously provided by the Commission of the European Communities.

J.R. Caldwell

1986 Ivory Export Quotas

The CITES Secretariat has received notification of additional quotas for the export of raw ivory of Loxodonta africana from its countries of origin. The following list therefore updates the one published in Traffic Bulletin VII(5):77.

	No. of tusks	Notes
Botswana	520	Includes current stock of 150
Cameroon	300	
Central African Republic	0	
Congo	1200	
Ghana	0	
Kenya	2000	
Mauritania	0	
Mozambique	120	Comprises total current stock
Niger	0	
Somalia	17002	
South Africa	12100	Includes current stock
Sudan	12971	
Tanzania	16400	
Zaire	10000	
Zambia	5800	
Zimbabwe	14000	

The Secretariat reminds Parties that all other African countries with elephant populations have a zero quota until and unless the Secretariat informs otherwise.

Bird Poster Banned

The Garuda airline of Indonesia has been ordered by the Government to withdraw advertising posters which show a bird trader with a cockatoo perched on his hand and a caption saying that Garuda handles the export of cockatoos with affection.

Indonesia bans the export of cockatoos.

Source: The Sydney Morning Herald (Australia) 14.2.86

Musk Deer Reviewed

A paper on "The distribution, status and conservation of the Himalayan musk deer Moschus chrysogaster" by Michael J.B. Green, has just been published in Biological Conservation (1986, Vol. 35:347-375). It indicates that the area of habitat potentially available to Musk Deer on the south side of the Himalaya is capable of supporting about 200 000 Musk Deer but probably harbours about 30 000. An estimated 4000 adult males are killed each year and the harvest could account for 18% to 53% of the Himalayan population annually, depending on how selective the hunting methods are with respect to the age and sex of the animals. Dr Green has evaluated the international trade in musk and concludes that the deer population could reach a critically low level if current hunting pressures continue.

He suggests that the use of musk in the perfume industry could be completely replaced by synthetics but that the medicinal use is likely to continue, especially if the therapeutic properties of musk become more widely established. Dr Green proposes that the harvesting of musk from wild animals, without killing them, might be appropriate for local people living at subsistence level in remote high-altitude regions of the Himalaya, where alternative sources of livelihood are meagre.

Michael Green is now working at the Conservation Monitoring Centre. His Ph.D. thesis, 'Aspects of the ecology of the Himalayan musk deer', was published in 1985.

Beche-de-Mer Revival?

There has been no commercial Beche-de-Mer fishery in Australia for almost forty-five years, but a recent report in Australian Fisheries asks whether there may be potential for reviving the industry along the Great Barrier Reef.

Beche-de-Mer, or Trepang, is the dried body wall of several species of sea cucumbers (holothurians), and from the late 1800s until the 1940s, its fishery provided substantial income for Queensland. At that time the market to China and Japan declined and so did the availability of the animals, effectively halting the industry. In spite of periodic interest in the industry, no successful fishery has been re-established in Australia. However Beche-de-Mer fishing is carried on as a cottage industry in the South Pacific and Asia where the product is used in cooking and reputedly has aphrodisiacal properties.

In order to establish the potential for a revival of this industry, surveys were carried out in 1978/79 by the then Queensland Fisheries Service. According to Dr V.J. Harriottt, who took part in these studies, the Teat fish Microthele noblis and Prickly Red Fish Thelenota ananas are the most marketable of the common sea cucumber species occurring on the Great Barrier Reef. Apparently, the market for Beche-de-Mer is variable and prices fluctuate greatly depending on demand. Prices in 1979 were approximately AU$5 (US$4) a kg for good quality Beche-de-Mer. Harriott believes that, "given the density of the sea cucumber populations surveyed, possible fluctuations in price and demand for the product, and competition in the marketplace from Third World countries with low costs . . . the Beche-de-Mer fishery is unlikely to be viable on the Great Barrier Reef at present". She believes that processing sea cucumbers into powder for medicinal use, at present carried out by a Queensland firm, may succeed on a small scale.

Source: Harriott, V.J. (1985). The potential for a beche-de-mer fishery. Australian Fisheries 44(6)18-21.

Dolphin Eyeballs in Demand

The Amazon River Dolphin Inia geoffrensis (CITES Appendix II), which is already threatened by the destruction of its habitat, is now under threat by a growing demand for its eyeballs.

Long valued as amulets by believers in a Brazilian voodoo cult, the eyeballs from this Dolphin are now considered to be lucky charms amongst non-believers.

Sold openly in markets and tourists shops in Rio de Janeiro and other major cities, the eyeballs can even be bought by mail order or over the telephone. Local conservationists, posing as potential buyers, were told by one dealer that he could supply 500 eyeballs within a week at a cost of between US$1.50 to $3.00 an eye.

The Amazon River Dolphin has not been well studied and there are apparently no population estimates.

Source: New Scientist, 5.12.85

Korea's Eelskin Trade

In South Korea, exports of eelskin last year were worth US$25 M (million) and are likely to reach $40 M this year, according to the Korea Leather and Fur Exporters Association.

Eelskin is velvety soft but extremely tough and is used in the production of shoulder bags, handbags, checkbook holders, spectacle cases, cigarette holders, wallets and belts.

According to Kim Wonmin, managing director of Se-Il Moolsan Co., South Korea's largest producer of eelskin, about eighty per cent of the eels destined for the skin trade are processed by four companies in Chungmu. Although the eels are pink, they are in fact called "mokchango", or black eel, and grow to a length of about 50 cm. The skins are reportedly removed by pinning the live animal by the head to a board, and removing the ultra-thin skin by slitting the belly lengthways. Apparently, if the eel is dead, the skin grows tough and unusable. Some of the eel meat is sold as food.

Three million eels are caught every month, from November to June, but production virtually comes to a standstill during the summer months as the heat spoils the eel's skin. The animals are caught around the Korean peninsula or imported from waters near China and Japan. Exports are controlled by the South Korean Government in order to ensure the eels' conservation, although supply is limited anyway due to a shortage of workers to clean the eelskins.

It is not known which species of eel is involved in this trade. WTMU is intending to produce a report on the international eelskin trade, and any information will be gratefully received.

Source: Herald Tribune

Bulletin Subscription Increase

The Traffic Bulletin will be published quarterly in 1986. This publication is sent free to WTMU consultants, government agencies, conservation organisations and other institutions involved in the conservation of threatened species. Donations to defray costs will continue to be welcomed. Owing to continually rising costs, it has been necessary to increase the subscription this year. To commercial enterprises and private individuals, the subscription is US$20.00 (£10.00 in UK) per volume. Cheques, bank drafts or international money orders should be made payable to the IUCN Conservation Monitoring Centre, 219c Huntingdon Road, Cambridge CB3 ODL, UK.

The TRAFFIC Network

Mr Jonathan Barzdo
Head
Wildlife Trade Monitoring Unit
IUCN Conservation Monitoring Centre
219c Huntingdon Road
Cambridge CB3 0DL
UK
Tel: (0223) 277427
Tlx: 817036 SCMU G

Mr Tom Milliken
Director
TRAFFIC (Japan)
6th Fl. #39 Mori Bldg.
2-4-5 Azabudai
Minato-ku
Tokyo 106
Japan
Tel: (03) 434 2221
Tlx: 2423793 AMEOIL J

Mr Frank Antram
Director
TRAFFIC (Australia)
PO Box 799
Manly 2095 NSW
Australia
Tel: (02) 977 4786
Tlx: 72577 FFASYD

Mrs Minouk van der Plas-Haarsma
Director
TRAFFIC (Netherlands)
Postbus 7
3700 AA ZEIST
The Netherlands
Tel: (03404) 19438
Tlx: 76122 WNF NL

Dr Jean-Pierre d'Huart
Director
TRAFFIC (Belgium)
c/o WWF Belgium
Chaussée de Waterloo 608
B-1060 Brussels
Belgium
Tel: (02) 347 01 11
Tlx: 23986 WWFBEL B

Sr Juan Villalba-Macias
Director
TRAFFIC (South America)
Carlos Roxlo 1496/301
Montevideo
Uruguay
Tel: (02) 49 33 84
Tlx: P. BOOTHUY 702 493384

Dr Manfred Niekisch
Director
TRAFFIC (Germany)
WWF Deutschland
Sophienstrasse 44
D-6000 Frankfurt am Main 90
F.R. Germany
Tel: (069) 770677
Tlx: 4 13854 VDTD

Ms Kathryn Fuller
Director
TRAFFIC (USA)
1255 23rd Street, NW
Washington, DC 20037
USA
Tel: (202) 293 4800
Tlx: 23 64505 PANDA

Printing and distribution of the Traffic Bulletin is funded by the People's Trust for Endangered Species and TRAFFIC (USA), a programme of World Wildlife Fund-US. The World Wildlife Fund and the United Nations Environment Programme provide financial assistance for the work of the IUCN/CMC Wildlife Trade Monitoring Unit. Any opinions expressed in this Bulletin are those of the writers and do not necessarily reflect those of IUCN or any organisation connected with WTMU.

Published by the Wildlife Trade Monitoring Unit, IUCN Conservation Monitoring Centre, 219c Huntingdon Road, Cambridge, CB3 0DL, UK. Compiled by Kim Lochen and edited by Jonathan Barzdo. Printed by Foister & Jagg Ltd., Abbey Walk, Cambridge.